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May-June 1982

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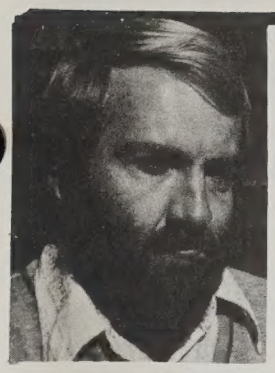

FREE RUN
OF THE EDITOR
— DON NEEL —

Welcome to the biggest edition of Practical Winery ever printed. We begin our third year of publishing the journal with this issue.

We asked barrel coopers and brokers all over the United States to participate in our market survey on barrels. In our next issue, Denis Kelly will begin a regular feature on barrels and wine. He will report experiences of winemakers working with different woods on wine. If you would like to contribute, let us know!

'Chardonnay with Seven Winemakers' kicks off a look at wines from all over the United States. Sauvignon Blanc follows in the next issue with winemakers from many diverse growing areas. Pinot Noir, fruit wines, hybrids, and other varietals that winemakers may suggest, are on my list.

I hope you enjoy the laboratory and consultant stories; all of the participants put in a lot of time on their material! Lees filter-press is our wastewater disposal solution this issue with a front end dividend!

My thanks to Pat Dore for an interesting marketing column and John Hubbard for all his help on the Ridge computer story!

We have heard favorable response on the Oregon State story in our last issue, but we are having difficulty getting other schools to contribute to the education column. Any winemaker alumnae suggestions of faculty who might participate, would be appreciated!

We will look at stainless steel tanks in the next issue: functional designs, including different vendors of variable capacity tanks; and insulating jacketed tanks to save energy. A market survey of secondary closure distributors will complete the issue.

A.S.E. convention-booth-numbers of vendors is included to help prepare you for the exhibits. I look forward to meeting many of you at the convention and picking up many story ideas!

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PRACTICAL WINERY

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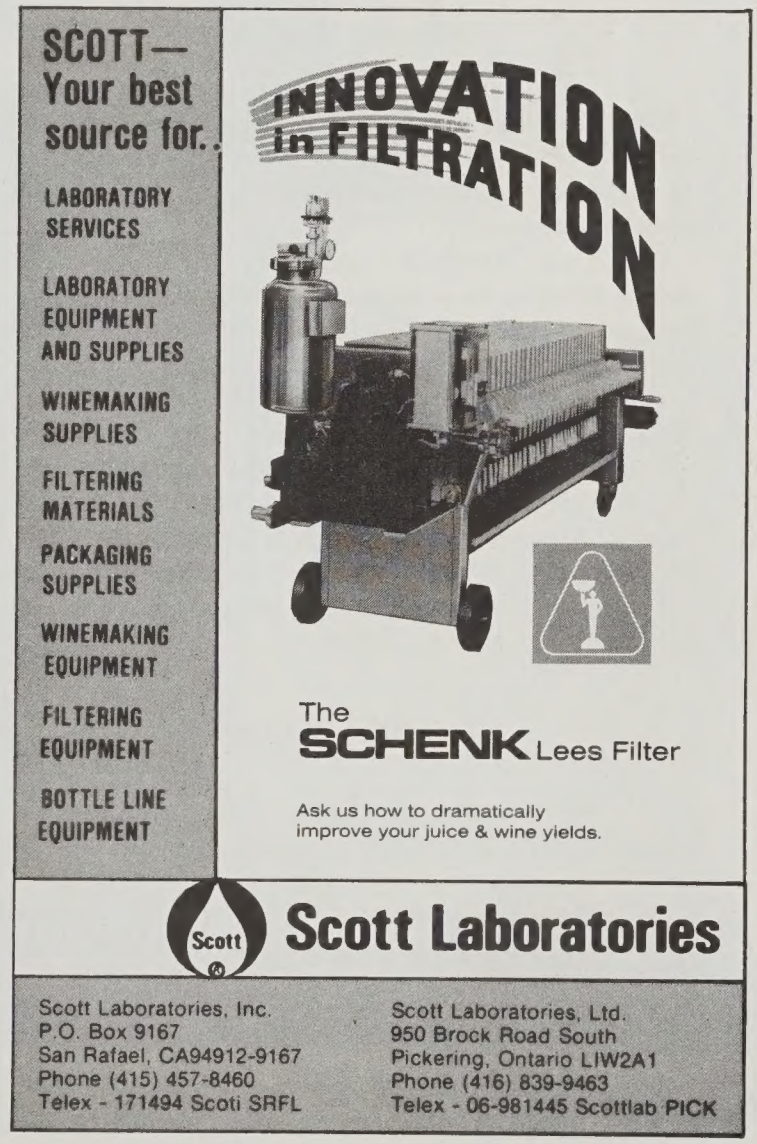

A.S.E. Booth 42-44

BARRELS

PW Surveys
Coopers and Brokers

BARREL BUILDERS

Barrel Builders offers a variety of cooperage from their warehouse in St. Helena, as well as, services including shaving at the warehouse or on the winery premises and barrel repair and assembly.

French oak barrels of Limousin or Nevers coopered by Murua in Spain are available with galvanized hoops in the Bordeaux style. French oak barrels also can be ordered from Tonnellerie Ludonnaise.

Yugoslavian oak barrels coopered in Yugoslavia with galvanized hoops are available in 100, 225 and 500 liter sizes.

Blue Grass Cooperage 52-gallon American white oak barrels with six galvanized hoops are available.

Used American and French oak barrels are usually available from inventory. Standard and custom wood bungs and stainless steel equipment for filling, rinsing and caring for barrels are also available.

COOPERAGE CLASSICS

A limited number of custom crafted oak barrels are available. Many of the tools and techniques that would have been commonplace in a cooperage of the mid 1800's are employed. The process provides a versatility to produce small oak casks in a variety of popular sizes that might not otherwise be available to both commercial and home winemakers. The classic 'oval' cask, esthetically unique and functional is available.

Any cooperage size and style can be produced from new or used American or European oak. Round barrels are available in sizes from 10 to 35 gallons. Oval casks are fabricated in volumes of 5, 10, 20 or 40 gallons. Functional and decorative hand carved barrel heads used in commercial tasting rooms or home wine cellars are available.

CUSTOM COOPERAGE

Bordeaux shape barrels are directly imported from Boutes & Cie and also available from the cooperage of Marchive-Fruhinsholz S.A. Both cooperages offer the option of six or eight galvanized hoops in the choice of three woods.

Limousin is the most popular wood ordered from Marchive. Nevers or Allier are the most common orders from Boutes. Both cooperages fire-bend and deliver a slight char. Three choices of char are available: light (tanned), medium (browned), or heavy (blackened).

Custom Cooperage offers barrels from two French cooperages as well as barrels from two American manufacturers and will take custom orders for non-standard barrel sizes and tanks, 180 gallons or larger.

Barrels made from Missouri Oak and fire-bent by A&K Cooperage are available delivered direct to the purchasing winery in minimum orders or 25 or more. The barrels have eight galvanized hoops and can be free of char due to the mild slow heating process or ordered with light, medium or heavy char.

Blue Grass Cooperage barrels are made from oak stavelots from all over the eastern states. Barrels are bent by steam and can be charred light, medium, or heavy, all with eight galvanized hoops.

Custom Cooperage will take custom orders for 15 or 30

gallon ovals, or barrels in 10-40 gallon sizes from American, French or Yugoslavian Oaks.

Used cooperage, primarily French, is bought and sold by Custom Cooperage. Custom has bungs for sale and also makes a bung hammer for $10.50. Repair service including shaving is offered.

All barrels or repairs are guaranteed not to leak through the first vintage.

A&K barrels sell for $112.50 and the price for Blue Grass barrels is $100.00 FOB Napa. Prices on French barrels are approximately – Boutes - $250.00, Marchive - $285.00. On order increments of 25 on French barrels there is a $1.50 unit discount and free delivery on 100 or more French barrels.

DEMPTOS COOPERAGE

Demptos Cooperage of Bordeaux, France has available at their Napa facility; barrels, puncheons, oval casks and upright tanks made of hand-split (quarter-sawn in the case of ovals and tanks) 100% air-seasoned Limousin or Nevers oaks. An inventory of barrels and puncheons is maintained at Napa.

225 liter barrels are made in the standard Bordeaux style (six galvanized hoops or option of eight) or Bordeaux Chateau style (eight small galvanized hoops, two wooden hoops on each end and a crosspiece on the head) with light, medium or heavy toasting. Upright tanks can be manufactured to winery specifications and are available with a stainless steel gate.

'Red wine' barrels used for up to 24 months in Grand Cru wineries of Bordeaux, France are available at the Napa plant after being reconditioned and refinished and fitted with new galvanized hoops.

Prices quoted are FOB Napa plant: new 225 liter, $250.00; used, $122.00; new puncheon, $428.00. Prices on tank & cask orders are available on request.

French oak barrels will be manufactured by Demptos at Napa beginning in July, 1982.

Bungs of redwood, fir, and oak are available. Rubber bungs are also available.

Napa Valley Cooperage at the same location in Napa offers reconditioning service for barrels, puncheons, oval and tanks which can include repairing, shaving, hoop replacing and custom order toasting.

All Demptos cooperage and Napa Valley Cooperage Company services carry a one-year guarantee.

MEL KNOX, BARREL BROKER

Two coopers of France, Francois Freres and Tonellerie Taransaud are represented by Mel Knox.

Cooperage photos taken at Tonnellerie Francaise by J. Michael Kanouff

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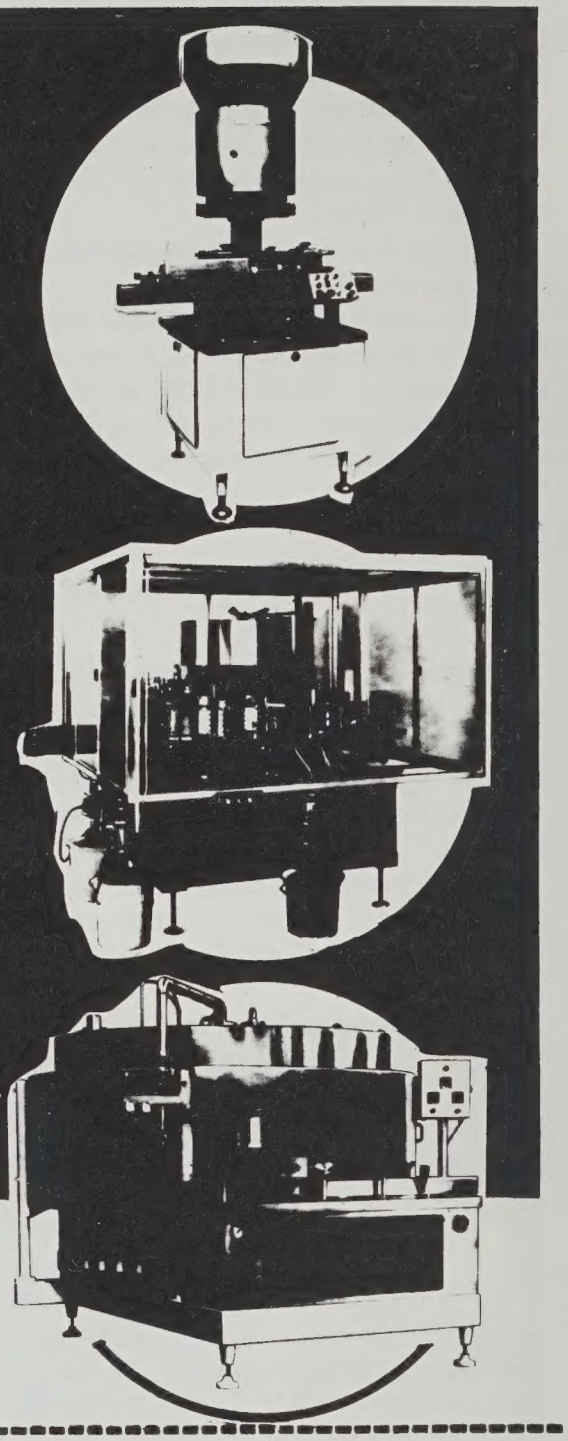

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Francois Freres coopers 228 liter burgundy shape barrels with either eight galvanized hoops or six galvanized hoops and four chestnut hoops. The hand-split staves can be ordered from the following wood types: Limousin, Trancais, Allier, Nevers, Vosges, or Jura.

The coopering process of Francois Freres produces barrels with a heavy toast.

Taransaud, which is owned by Moet-Hennessy, offers an eight galvanized hoop 225 liter barrel. The hand-split staves are air-dried for five years and are available in Limousin or Bois de Centre (wood from the center of France). Barrels from Taransaud have a light to medium toast. Minimum order is 15 barrels.

Taransaud also offers 450 liter puncheons. With an order of 25, the winery can specify the degree of toast. Puncheons are available in either of the above woods.

Tanks are available from Taransaud and are built up to 10,000 gallons and can be shipped intact for sizes of 3,000 gallons or smaller.

Prices quoted CIF port of Oakland or Los Angeles for Taransaud barrels are as follows: less than 50, 1580 francs; over 50, 1560 francs; a full export container at 1540 francs per barrel. Francois Freres prices change periodically, but are lowest when delivery is scheduled for the "off season" of March and April.

Knox often has 15 and 30 gallon barrels available.

Used barrels are represented by Knox in the following manner. Barrels for sale are available for inspection at the owner's winery with wine in the barrels, so that the purchaser can inspect barrel and wine to determine the barrel's condition. The buyer then takes delivery immediately upon emptying and cleaning by the seller.

LES TONNELLERIES de BOURGOGNE

Vincent Bouchard represents an association of three coopers located in Burgundy, France. They are: G. Billon, 2nd generation in Beaune; R. Remond, 1st generation in Ladoix Serrigny; and J. Damy, 2nd generation in Meursault.

The coopers use hand-split oak (27-29mm thick) which has been air dried two years outside. The standard Burgundy style has six galvanized hoops and is available with four wooden hoops or eight total galvanized hoops. Normal toasting is medium, custom orders of light and charcoal are available. Custom shapes are available and all barrels have a one year guarantee.

Bouchard likes to consult with the winemaker to determine the use of his barrels. Bouchard recommends the following woods to match appropriate wines: Chardonnay; Vosges, Allier, Nevers. Pinot Noir; Allier, Burgundy, Nevers. Cabernet Sauvignon or Merlot; Limousin.

Popular size barrels are 225 liters, 300 liters, and 500 liters.

Price quoted FOB Port of Oakland is 1477 Francs for the 225 liter size. Orders of fifty or more receive a quantity price break. Bouchard normally spreads any order for his association amongst the three members.

MOFFETT CO., INC.

Barrels and tanks coopered by Marchive-Fruhinsholz S.A. in Jarnac, France have been imported by the Moffett Co. over a period of six years.

Barrels may be ordered from Limousin, Nevers or Allier Oaks and are air-dried with hand-split staves.

Cognac style barrels are available in 300, 350 or 450 liter sizes with eight galvanized hoops and two willow runners. Export style barrels are available in 180, 225, 300 and 500 liter sizes with eight galvanized hoops.

Normal manufacture produces a light char but medium or heavy char can be ordered. The fire-bent barrels are guaranteed.

Quantity price breaks are available on order increments of 25. The delivered price on the 225 liter size is approximately $250 to $290.

Marchive accepts orders for custom tanks up to 250,000 gallons made from quarter-sawn, air-dried French oak.

OAK BARREL WINECRAFT

Oak Barrel is the exclusive agent for French oak barrels coopered by Henry Meyer and offers American oak barrels from A&K Cooperage and Blue Grass Cooperage from the Berkeley warehouse.

Meyer barrels are made in the Burgundy style with six galvanized hoops and an option of four willow runners.

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A.S.E. Booth 175-176

Choice of oak is Limousin or Nevers in a standard light toast. Heavy or medium toast can be ordered.

The base price for a Meyer 60 gallon barrel is approximately $250 to $260. A ten percent discount is applied to orders of 60 or more. Smaller size Meyer barrels are also available from 1¼ to 30 gallon sizes.

Barrels from A&K Cooperage and Blue Grass Cooperage are available in various sizes.

Oak Barrel has used brandy and whiskey barrels available in 40 or 50 gallon sizes for $25. Rebuilt 30 gallon brandy barrels are for sale at $70.

Fifty-five gallon Yugoslavian oak ovals are available for $400 and are also available in one to ten gallon sizes.

STEFANICH

Stefanich is the exclusive distributor for the cooperage-Seguin Moreau, which is owned by Remy-Martin in France.

The Bordeaux cooperage produces chateau style barrels in the 225 liter size with staves of 19mm thickness and eight galvanized hoops, two bark runners on each end and a crosspiece on the head.

Staves are hand-split and air-dried for a minimum of three years and come from forests in Limousin or the center of France. The standard toast is light, but medium and heavy are available. These details apply to the above barrels as well as barrels made in the Cognac cooperage described below.

Bordeaux style barrels coopered in Cognac have staves of 25-27mm thickness and are available with eight galvanized hoops in the export design or equipped with chateau outfitting (bark runners and crosspieces on the head).

Burgundy style barrels are coopered in Cognac in the export design or traditional design with eight hoops and eight bark runners. Cognac style barrels are made in the 350 liter size. A 500 liter puncheon is available from the Cognac cooperage.

All barrels are shipped in shrink-wrap plastic to protect the barrel in handling and maintain moisture. The barrels are tested at the cooperage before shipment and are guaranteed.

Within one year after purchase of barrels, a cooper from France will visit the purchasing winery to inspect the barrels and attend to any problems.

Following prices are quoted CIF port of Oakland or the Stefanich warehouse in San Francisco.

Bordeaux barrels in export or chateau style—1668 francs, with chateau outfitting—add 50 francs. Burgundy barrels with oak from the center of France—1668 francs; Limousin—1595 francs, traditional outfitting—add 50 francs. 350 liter Cognac barrels—2066 francs. 500 liter puncheon—2963 francs.

Stefanich accepts custom orders for wood tanks made of American White Oak, French Oak, or Redwood in sizes from 500 to 50,000 gallons.

TONNELLERIE FRANCAISE

Barrels made in the old traditional French method using European equipment have been produced by Tonnellerie Francaise in Calistoga, California since 1980, according to Jean-Jacques Nadalie, president.

The primary wood used is Quercus Alba from eastern Missouri, which has been air-dried eighteen months or more. French oak from the following forests can be ordered for barrels made in Calistoga: Limousin, Allier, Troncais, or Nevers.

Barrels from the same choice of woods and made by Tonnellerie Ludonnaise, S.A., in France are distributed by Tonnellerie Francaise. Workmen from Tonnellerie Ludonnaise actually go to the forests, select the wood for their cooperage, split the staves, and ship the wood to the cooperage or export to Tonnellerie Francaise. Winemakers receive a certificate of origin with their order, noting origin of the wood in the purchase.

225 liter barrels coopered in Calistoga are made in the Bordeaux style with six galvanized hoops and a medium 'toast.' Eight hoops or light or heavy 'toast' can be ordered. French wood staves are hand-split, American oak is quarter-sawn, and all are 27mm thick.

500 liter puncheons and any custom order size between 110 liters and 500 liters can be made in Calistoga. Tonnellerie Francaise stands behind all barrels made in Calistoga or France with repair service available in Calistoga.

225 liter 'Bordeaux style' barrels ordered from Tonnellerie Ludonnaise can come with six galvanized hoops

and 27mm staves or can be ordered in the 'Chateau style' with eight galvanized hoops and four wooden hoops and 23mm staves.

All French Oak is air-dried three years. Other sizes are available from Tonnellerie Ludonnaise including the popular 350 liter barrel or the 225 liter barrel in the 'Burgundy Style.'

Tonnellerie Ludonnaise will produce tanks to custom order of any capacity or shape made of wood from the center of France and air-dried five years and toasted by standard manufacture.

Prices quoted are FOB Calistoga plant: American Oak 225 liter-$168.00; French Oak 225 liter coopered in Calistoga-$265.00; 225 liter French Oak from Tonnellerie Ludonnaise-approximately $265.00; American Oak 500 liter puncheon-$350.00; 500 liter puncheon coopered by Tonnellerie Ludonnaise-$475.00.

TONNELLERIE SIRUGUE

Tonnellerie Sirugue, represented by the Boswell Co., offers two styles of 228 liter barrels—burgundy with six galvanized hoops and eight chestnut bark hoops or cognac with eight galvanized hoops. Specific oakwood is not encouraged when ordering Sirugue barrels due to Yves Siruge's position that quality French oakwood is scarce.

Sirugue barrels are built to the specifications of the cooper from Burgundy oakwood of the Citaux forest or Nevers and have been imported since 1960.

The hand-split staves of 28-30 millimeters in thickness have been air-dried a minimum of two years—one year outdoors and one year under roof. The standard process of Sirugue will produce a light toast. Medium or heavy toast are also available.

The following prices are FOB the cooperage in Nuits-Saint-Georges, France: Burgundy style, 1350 francs; cognac style, 1300 francs.

UNIVERSAL BARREL CORPORATION

Once-used bourbon whiskey barrels in the 50-52 gallon capacity comprise the majority of the 100,000 barrel inventory for sale. These barrels have a standard heavy char. American oak barrels with char-removed suitable for ageing white wines are also available. The char-removed barrels can be paraffin-lined if the oak flavor is not desired.

Reconditioned 30-gallon barrels are available: charred, char-removed, or paraffin-lined. New, paraffin-lined kegs are available in 5, 10, and 15 gallon sizes.

Additional products available are poplar bungs, dowel pins for repair of damaged heads, and toasted or charred oak chips to help maturation and enhance oak flavor.

Coopers are maintained on the staff to supply services and expertise to all users of barrels. These coopers are available to travel for consultation. Cooperage tools and equipment are available for sale to those wishing to do their own coopering. ■

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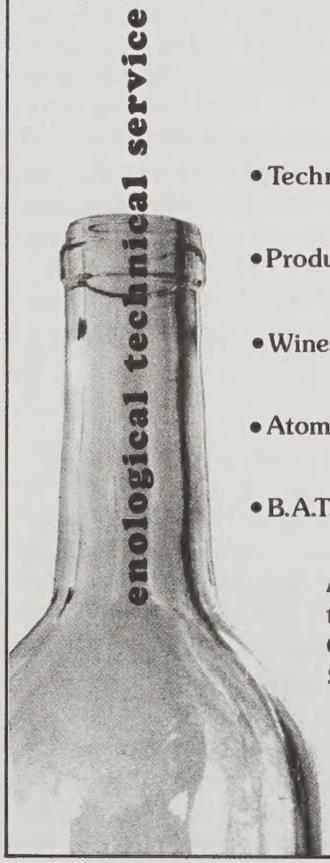

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CONSULTANTS How They Are Helping Winemakers

This interview has questions posed to Larry Wara by Tony Norskog and the same questions repeated to Bruce Rogers and Chuck Ortman by Don Neel. Wara currently has clients in Sonoma, Alexander Valley, Napa, Suisun and El Dorado County. Ortman and Rogers have formed a joint consultancy in 1982 to serve their clients which are in Napa and Sonoma Counties. Ortman's experience includes working at Heitz and Spring Mountain before becoming a consultant. Rogers has worked at Stony Hill, Joseph Phelps, and Spring Mountain, and spent several years in retail before joining Ortman.

PW: Do producing wineries ever have a need to hire consultants?
BR: Probably more have the need than are willing to admit. Egos are usually strong in this industry and rightfully so! But not to the point of blindness! I have heard twenty-eighth hand that seventeen Napa Valley wineries are on the brink of bankruptcy. If that number is even close, those wineries probably weren't willing to admit to themselves early enough that they were having problems while something could still be done. I'm not suggesting that any of them even had wine quality problems or marketing and sales problems. But, I would be willing to bet that many did, and, that timely help might have kept the wolves from the door.

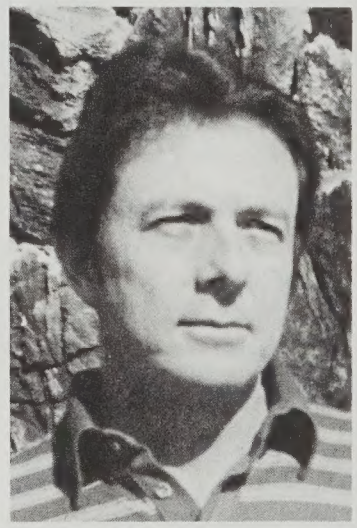
Obviously, like any other business, wineries are capable of poor financial planning and subject to the stresses of an eroding and unpredictable economy. But, if your wines are not selling, you had better find out why not as soon as possible.
PW: How does a winery find a consultant?
CO: I think it makes sense to ask people in the trade. Most consultants will be known by someone in the industry, and you should be able to find the person with the skills you are looking for without too much difficulty.
LW: I do not know of any good listing of available consultants. Probably I would contact the American Society of Enologists first, because their membership listing would list people who do consulting. I, however, have picked up most of my clients by 'word of mouth.'

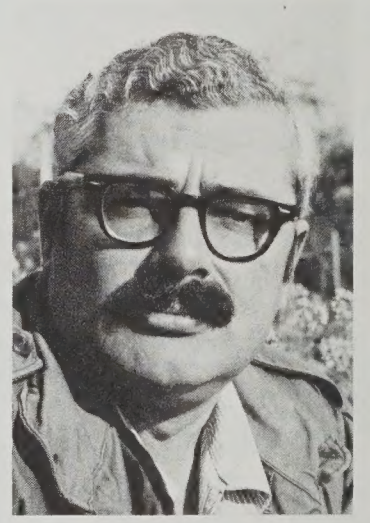
When I left Robert Mondavi, I worked for Mt. Veeder on a part-time consulting basis and I also wrote letters to people outlining what I felt I could do. I think the situation is different today. There are so many more wineries today than in 1976, that my approach might not be useful today.

I think I would approach the ASE first, then talk to people in the business and find out who they know is doing a good job. If I was looking for a consultant/winemaker, I would note the type of wine I like—the style of wine I enjoy drinking. I would then approach those people at wineries who are making those types of wines and their winemakers or consultants and then proceed from there.

I think people coming into the industry should have some conception of the wine style they want to produce, what they want to grow.
PW: Should people coming into the industry produce wines to their own taste or to the market's taste?
LW: I think that for the long run, you had better produce it to your taste—the market is so volatile. I don't think you should change your style drastically year to year. If you make a semi-sweet Riesling, but prefer a drier style, you can move that way—toward the drier style, but I think it should take several years to reach that style.

You cannot move out of that type market easily. Produce the wines for yourself: after all, you have to drink a portion of it! You should make a statement with your style. I think the market will accept anyone's taste as long as they are good sound wines.





Bruce Rodgers and Larry Wara
(Ortman's photo in Chardonnay story)

BR: I assume we're talking about the tastes in the premium-varietal market. The essential differences will be stylistic. 'Shall I make a fairly woody Chardonnay, a ponderous, alcoholic Chardonnay, or a delicate, high-acid Chardonnay?' . . . and so forth. Ultimately, we also assume that all of these wines will be recognizable as Chardonnay.

I would first review the history of the marketplace, and proceed if the style of Chardonnay that suits my taste has had some measure of success over a reasonable period of time.

I would also be certain that I had the means necessary to produce Chardonnay in my style with consistency and the highest standards. This does not mean that there's no room for experimentation . . . there is. However, certain realities have to be dealt with first!

We know that differences in Chardonnay have existed and been accepted for centuries. French Chablis is different from Montrachet, which is different from Mersault, which is different from St. Veran.

The point is—they are all Chardonnay and each is appreciated and purchased for their unique taste characteristics. That notion of market taste does not seem to change much. There are acceptable and accepted differences in wine styles, so make wines to your taste with all these things in mind.

PW: What can a winery expect its consultant to do?

LW: That can be a problem. It depends on your expertise in the business. I have clients who have absolutely no experience, where I essentially act not only as the winemaker, but also train them. I have other people who have a good deal of experience and use my time for tasting the wines and basically try to avoid problems.

I also give technical assistance in lab analysis and equipment evaluation, winery design, and cost analysis over a five to ten year period. Consulting is all encompassing.

BR: Every winery should first expect a consultant to help them produce quality, marketable products. Many new winery owners seem blinded by a notion of romance, losing sight of the necessity of having to sell what they put in the bottle. More than a few wineries have been launched without an iota of thought given to the marketplace. When they go out to peddle their product, the experience is not always what you might call joyous.

Not all consultants offer the same services. A winery must obviously know exactly what skills any particular consultant possesses, and can, and should expect a consultant to do effectively whatever they need to have done.

CO: Our approach is to roll up our sleeves and get dirty when that's necessary. I'd find another occupation if I thought consulting required clean hands and fancy clothes. To me, it makes no sense to stand aside and attempt to *tell* someone how to crush grapes or bottle wine.

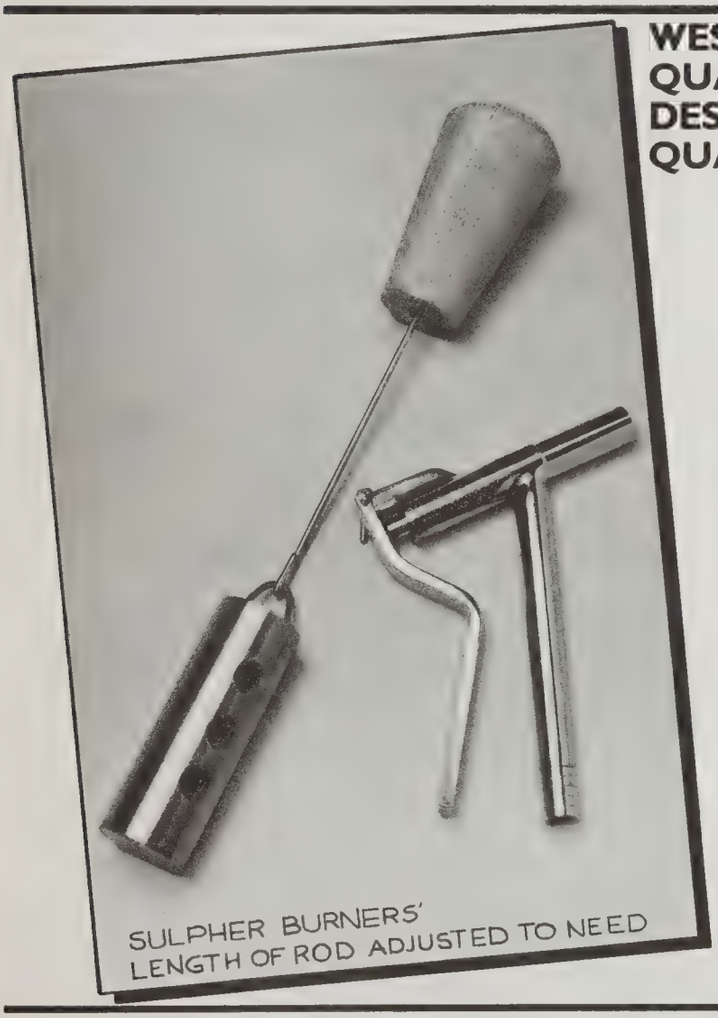
PW: What makes one consultant different from another?

BR: Aside from the obvious things, like producing quality wine, it will depend on the differences in individual experience and background. Some consultants concentrate on winemaking because they do that best, or because they like that best. Very few consultants offer all services from concept to sales-planning and do them well since most consultants haven't had direct experience with all aspects of the process.

PW: Should (or could) a winery choose to have more than one consultant?

LW: I think that would be a very difficult situation in which to work. All winemakers, whether resident or consultant, have specific ways they want things to be done—the way they handle a specific variety, and to have two people acting as winemaker would present a problem. It would be less of a problem, if the people running the winery were experienced and were just using the consul-

Con't. on p. 30



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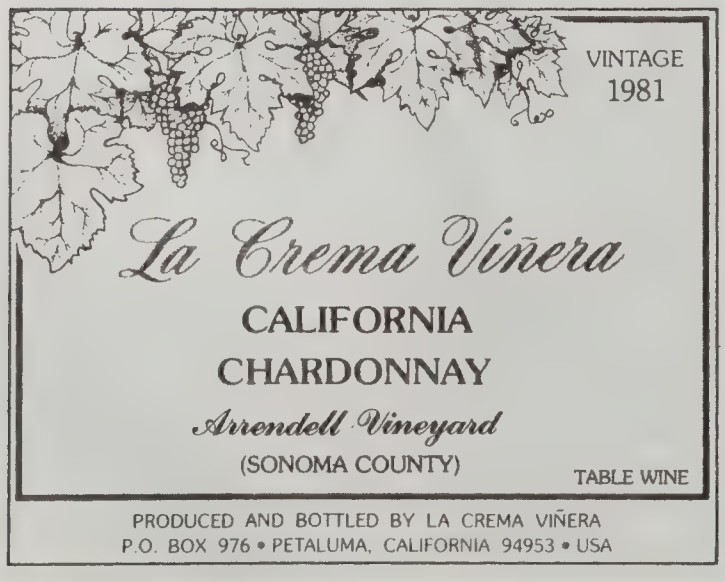
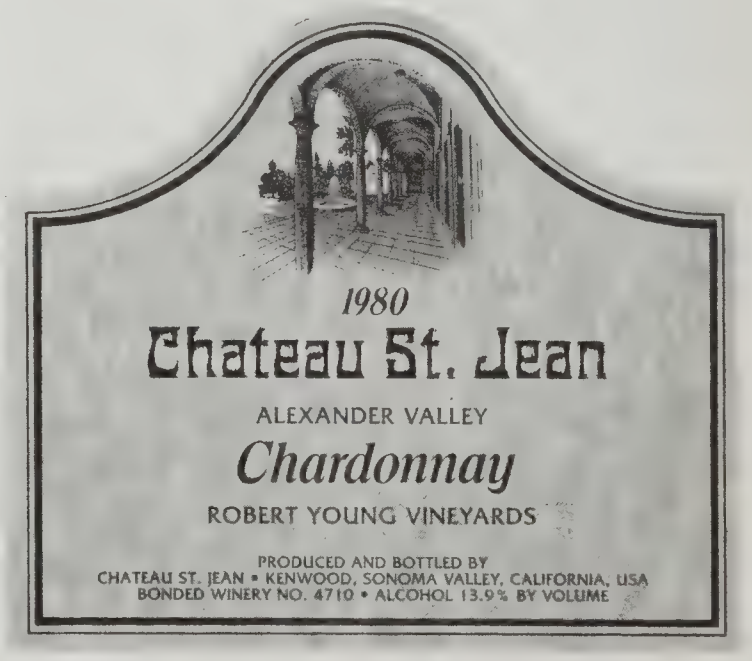
CHARDONNAY

by DON NEEL

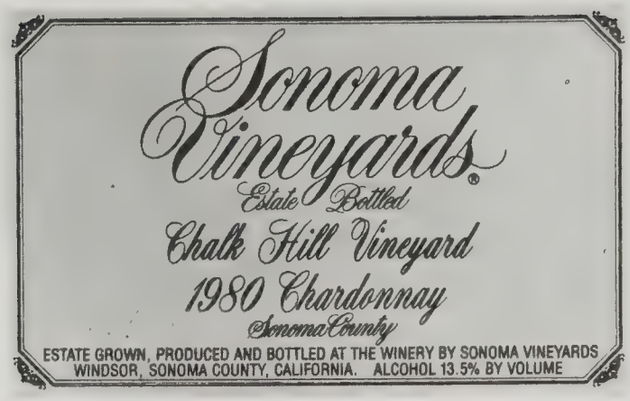
Chardonnay is produced under more labels than any other varietal being bottled today! What variables does a winemaker consider in making Chardonnay different from another in the marketplace as well as among Chardonnays from different vineyards at a single winery?

I asked seven California winemakers for their approaches to Chardonnay: Larry Brooks of Acacia, who will bottle four Chardonnays from the '81 harvest; Dick Arrowood at Chateau St. Jean, who released nine Chardonnays from the '80 crush; Mike Grgich of Grgich Hills Cellar, who makes one Chardonnay each year; Stephen Kistler of Kistler Vineyards, who released three Chardonnays from the '80 harvest; Rod Berglund of La Crema Vinera, who will release five Chardonnays from the '81 crush; Charles Ortman, who makes Chardonnay under two labels and consulted on five more labels in 1981; and Rick Sayre of Sonoma Vineyards, where seven Chardonnays were made from the '80 crush.




1980
Chateau St. Jean
ALEXANDER VALLEY
Chardonnay
ROBERT YOUNG VINEYARDS
PRODUCED AND BOTTLED BY
CHATEAU ST. JEAN • KENWOOD, SONOMA VALLEY, CALIFORNIA, USA
BONDED WINERY NO. 4710 • ALCOHOL 13.9% BY VOLUME

Seven Winemakers Explain Their Style

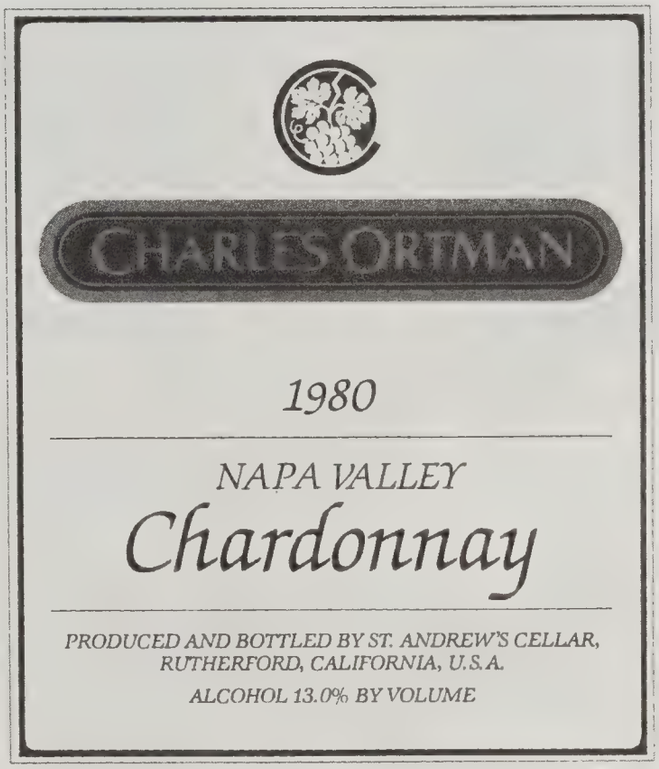

Sonoma Vineyards
Estate Bottled
Chalk Hill Vineyard
1980 Chardonnay
Sonoma County
ESTATE GROWN, PRODUCED AND BOTTLED AT THE WINERY BY SONOMA VINEYARDS
WINDSOR, SONOMA COUNTY, CALIFORNIA. ALCOHOL 13.5% BY VOLUME

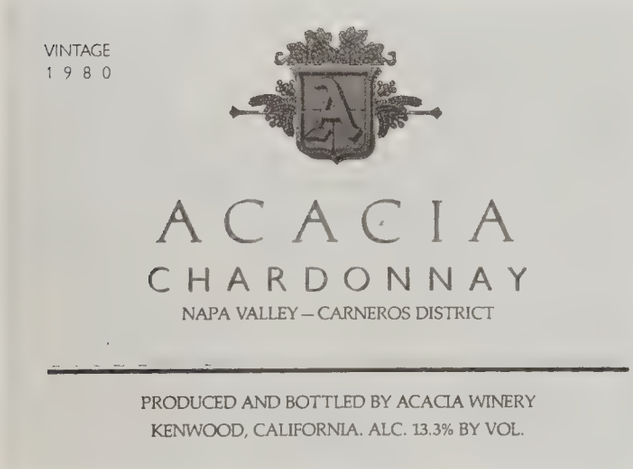
How do these winemakers analyze the fruit before and/or at the time of harvest?

Brooks counts on the grower's intuition in addition to numbers which should be above 23 brix, but most important—watch the vine! "We prefer to work with 10-20 acre lots and our '81 harvest average was 24.5 from vineyards near the winery: Winery Lake, Carneros, Napa, and Madonna vineyard," says Brooks.

Chateau St. Jean has a vineyard manager who oversees 120 acres and works closely with 14 other growers in Sonoma Valley and Alexander Valley. "We like grapes between 23-24 brix, acid as close to 1.0 as possible and pH between 3.0-3.2. Yields vary from 1-1½ tons in one vineyard to 3-4½ tons in another," says Arrowood.

Grgich looks for physiological maturity in his grapes from vineyards around the winery, in Rutherford, and from the foothills of Mt. George, east of Napa. "We analyze for sugar and acid and we taste the grape, when the flavor is at its peak, we pick. Our croploads depend on the moisture-rainfall from year to year, the average is

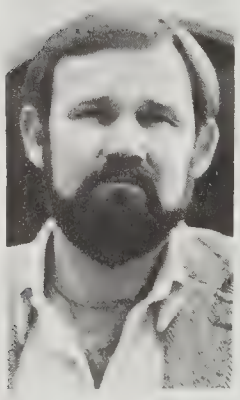




about three tons/acre," says Grgich.

Kistler wants Region 1 grapes which offer elegance and come in about 23-23.5 brix, with high acids and a low pH of 3.0-3.1.

Berglund watches the maturity level, checking the taste and condition of the grape. His ideal harvest is similar to White Burgundy which delivers 2-2½ tons per acre at 22.5 Brix, over 1.0 acid and 3.2 pH. Berglund picks from Winery Lake Vineyard in Carneros as does Brooks and Kistler, but at a lower sugar—below 23, over 1.0 and about 3.3 pH. Two Sonoma vineyards were picked at 21.5-22 while Ventana grapes were picked at 23 in two lots, one with 1.4 acid and 3.2 pH, the other with 1.1-1.2 acid and 3.2 pH.



'The length of skin contact time averages 24-48 hours at 35-40° but has ranged from 20 hours to four days.'

—Dick Arrowood

Ortman likes to work with a blend of valley and hillside vineyards and he notes the type of soil, age and past production of the vine. He looks for acid above 0.8, pH below 3.4, and a minimum of 23 Brix to achieve varietal character in the wine.

Sayre and vineyard managers are familiar with the soil and know the exposure to the sun to assure the correct amount of foliage to protect against sunburn and raisining. They strive for even ripening. The size of the berry and the cropload are watched. The target Brix is 23.5 and the acid and pH are in proportion for the desired goal of 13.5 alcohol. Sayre, as many other winemakers, checks with growers on the last sulphur application before harvest.

How do these winemakers crush the fruit and do they give skin contact time?

Grgich crushes with 50-70 ppm sulphur addition and presses immediately. "We pick the grapes at full maturity. They get the contact on the vine. It is only if the grapes are green that you need skin contact, and then you risk oxidation and other problems," says Grgich.

Sonoma Vineyards crushes with 30-50 ppm sulphur depending on the fruit condition; less with good clean fruit, more if mold exists. "We have tried no sulphur with real good fruit until after pressing with good success," says Sayre. Most grapes receive 8-12 hours skin contact at 55°, although lighter, fruitier styles receive no skin contact. Mold on grapes, weather and lack of room during crush may not allow skin contact.

Chateau St. Jean accepts no grapes with mold and will typically add 60-75 ppm sulphur to lock up polyphenol-oxidates (browning enzymes). "The cosmetic appearance of the grapes will determine the length of skin contact time which averages 24-48 hours at 35-40°, but have ranged from 20 hours to four days. We may divide up a vineyard into different skin contact time batches," says Arrowood.

"Usually, we crush in the afternoon and press the next morning when the fruit looks real good, but if the fruit is moldy or broken down, we press immediately," says Brooks.

Generally, Ortman does not use skin contact in order to achieve his fruity style.

Grapes for Kistler are only picked in the morning and receive 35 ppm sulphur at crush and an average of 24-36 hours skin contact at 60°. If the grapes are real ripe (thin skins) then less time is given. Kistler takes an initial TA and pH first because pH might rise from 3.3 to 3.4 after fermentation due to skin contact.

Good fruit from Sonoma vineyards and Winery Lake will receive up to two days skin contact at La Crema

'Ventana . . . grapes pick up plenty of varietal character due to hanging on the vine so long and do not need any skin contact . . .'

—Rod Berglund

Vinera. "Ventana grapes are the last grapes we bring into the winery. Due to that cool climate, the grapes pick up plenty of varietal character due to hanging on the vine so long, and do not need any skin contact at the winery," says Berglund.

Will the winemaker make an acid addition? If so, what step of vinification would it be done, and with what choice of acid?

At Grgich Hills, acid addition is the exception to the rule, but on a rare harvest, tartaric has been added at crush to make up for an acid deficiency so that the must is at 0.9-1.0 for fermentation. Even rarer, is an addition of tartaric after fermentation. "If you must add acid, do it early," says Grgich.

Acid addition is not done very often at Chateau St. Jean. The pH can go up during skin contact and because tartrates can drop during cool fermentation, a combination of malic and tartaric might be added to make up for a natural deficiency in the grape after skin contact time.

At Sonoma Vineyards, the juice is checked before inoculation and if the acid is deficient and depending on the vineyard, malic or tartaric acid or a combination of the two might be added to the juice. Before fining and filtration, an acid addition trial is conducted with different amounts of malic, tartaric or citric, and different mixtures of the three. The acid goal in the wine is 0.65-0.8 and taste tests will pinpoint a particular wine's level and malic usually has been the acid used.

At Acacia, if the pH is higher than 3.4 before fermentation, a gross adjustment with tartaric acid might be made. A gross adjustment of tartaric might be done before barrel aging if a pH shift has occurred. After barrel aging, a fine addition of malic acid could be done if necessary.

Berglund would rather not add acid, but acid addition trials are done one-two months before bottling and he has made some tartaric additions at that time.

Based on the pH and acid level of the grape, Ortman might add tartaric prior to fermentation. Three to four weeks prior to bottling Ortman will do a bench test and has sometimes added tartaric and/or a touch of citric has been used to freshen up a particular wine in the past.

After completion of malolactic fermentation at Kistler, tartaric acid is usually added, quantity determined by taste, according to Kistler.

What type of yeast do these winemakers like on Chardonnay? Is free run and press juice kept separate during fermentation? Tank versus barrel fermentation at what temperature for how long?

"Barrel fermentation is dangerous, because you can't fill the barrel completely and oxidation might occur. I would rather not do it if we had enough stainless steel cooperage, but we don't. Low pH and high acid would reduce the risk. After pressing, the juice is settled, racked and inoculated with Montrachet yeast, which gives the flavors we seek. Depending on space and the pace of harvest, the juice will

'. . . Montrachet yeast gives the flavors we seek.'

—Larry Brooks

leave the tank between 10 and 15 Brix and go to barrel where fermentation finishes at 70-75°," says Brooks.

"If pH is under 3.3 and the acid over 0.85, 0.9 or almost 1, and the fruit was real clean, I might barrel ferment after inoculating the juice in the tank at 60° with Champagne yeast and racking the wine to barrels at 14 Brix," notes Ortman. "Barrel fermentation tends to reduce fruitiness. I like to finish my tank fermentation at about 48-50° to retain the fruit," adds Ortman.

At Sonoma Vineyards, the heavy press juice is kept separate on estate lots through fermentation and treatment. Juice is settled or centrifuged to achieve 1-2 percent solids for fermentation with the primary yeast being French White. "If the grapes were moldy, we might use another yeast to achieve a faster, cleaner fermentation," says Sayre.

Sonoma Vineyards does fermentation in tanks at 50-55°.

'Malolactic fermentation is conducted to add a buttery, toasty quality which enhances the char character of our barrels.'

—Stephen Kistler

"We check the wines twice a day, Brix and temperature, and smell the wine. We usually rack at one-two Brix," adds Sayre.

Grgich uses French White yeast on his juice which has less than one percent solids after settling. Tank fermentation begins at 50° and finishes at about 60°. In 1981, Grgich fermented 25% of his juice in barrels to add more complexity to his style, which took two-three weeks. Tank fermentation takes four-eight weeks.

Kistler mixes free run and press juice to speed up primary fermentation and malolactic fermentation, because he has found free run juice can have a tendency to stick during fermentation. Kistler uses champagne yeast which was added to the barrel and fermentation would take about two weeks at 70-72°. Beginning with the '81 harvest, Kistler tank ferments parts of each batch at 65°. Kistler does not settle juice before fermentation.

At Chateau St. Jean, free run and press juice are kept separate through fermentation and treatment. Press juice from vineyard designations will usually go into some other white wine. Champagne yeast is introduced to the juice in the tank and 75% of the '81 vintage went to barrels for fermentation which finished at about 65-68° after starting at 40°.

Berglund puts free run and press juice together in the tank and lets the juice settle before racking off to barrels. Pasteur Champagne yeast is introduced to the barrel and after about a week, barrels are topped almost full and covered during an ideal fermentation of two to three

months. Berglund has experimented with wild yeast and plans to look at more yeasts with the '82 crush.

Will the winemaker take his wine through malolactic fermentation and what cooper or choice of wood will he use for barrel aging?

"Malolactic fermentation is conducted to add a buttery, toasty quality which enhances the char character of our barrels from Francois Freres," says Kistler. Currently they have medium char barrels, but would like to try light char.

1981 Kistler wines were inoculated with a freeze-dried ML culture after primary fermentation. In 1982, Kistler will try to inoculate wine in barrels just past the peak temperature during primary fermentation which occurs at about 15 brix. Tank juice where the temperature is controlled will receive champagne and ML culture at the same time.

"We want to maximize the finesse and elegance of the grapes and we don't want the oak to cover up the malolactic character. We aim for a toasty, cereal quality similar to a French Mersault or Montrachet," says Kistler. Kistler is still experimenting with barrel age time after racking when ML is completed. One-three pounds of bentonite and SO_2 are added in the tank before returning the wine to the barrel. The wine is pulled from the barrels in May or sooner

Grgich adds about two pounds of bentonite in the middle of tank fermentation to settle solids, yeast and get out some proteins, but not enough to achieve total heat stability. Malolactic fermentation is not permitted and barrel aging averages six-eight months in Limousin oak. A mixture of barrels (new, one or two years old) are used which will dictate barrel-age time.

'It is only if the grapes are green that you need skin contact . . .' —**Mike Grgich**

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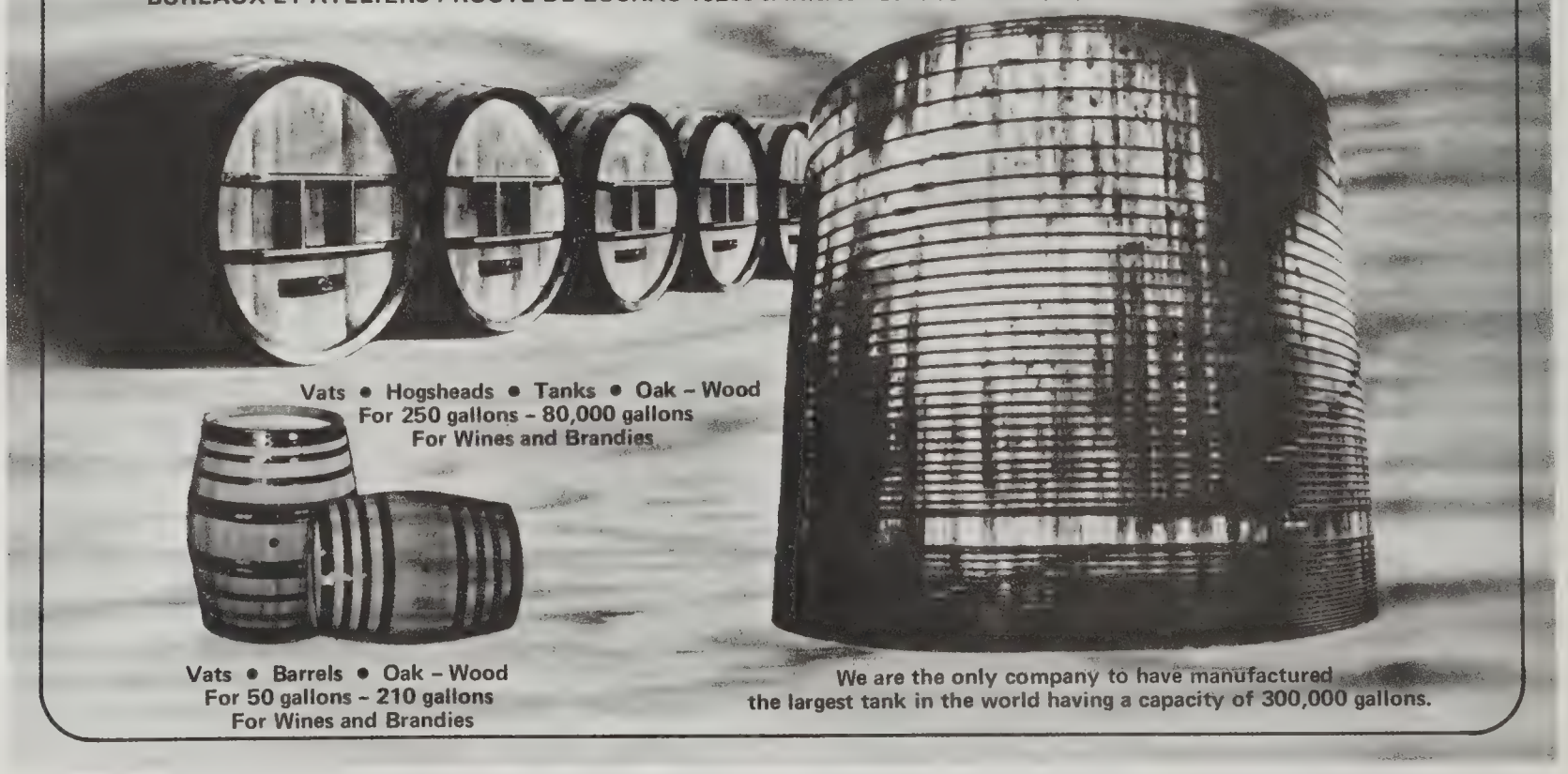

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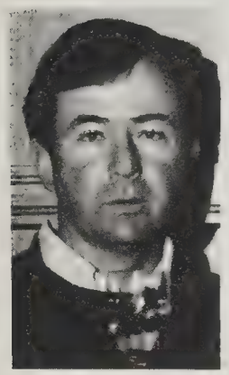
A.S.E. Booth 1-4

After fermentation at Chateau St. Jean, the juice is settled or centrifuged and returned to new and used barrels of Nevers, Limousin and Allier which have light char. Center of France oak barrels have been added with the '81 vintage and Arrowood is comparing different chars. The wine is tasted monthly and then once a week to determine when enough nuance of oak and softening has occurred which averages six to eight months. Malolactic is not permitted by maintaining proper SO_2, and low pH and low temperature.



'Barrel fermentation tends to reduce fruitiness. I like to finish my tank fermentation at about 48-50° to retain the fruit.'

—Charles Ortman

Malolactic fermentation is not allowed at Sonoma Vineyards and the average time in wood is six-eight months. Limousin barrels from Murua and oak barrels from the center of France coopered by Seguin Moreau are used. 6000 gallon French oak tanks coopered by Seguin Moreau and 3000 gallon Yugoslavian oak tanks are used.

Ortman does not generally permit malolactic fermentation, but might consider it if the acid is over 0.9. Ortman uses Limousin oak barrels. Ortman has used Montrachet yeast on a particular wine and racked off the gross lees during fermentation to reduce the possibility of H_2S and enliven the yeast to reduce the possibility of stuck fermentation.

Berglund desires malolactic fermentation if he has low pH and a high total acidity. The '79 vintage allowed no malolactic while all '81 wines completed malolactic before the wine was taken off the yeast after being inoculated with ML-34 during fermentation. If the wine is not conducive to malolactic, it is racked off the gross lees. Malolactic gives the wine more complexity, Berglund believes.

Berglund has used new barrels every year with the majority being Burgundy barrels from Francois Freres with medium char. The balance are Bordelais barrels from Taransaud with no char. The wines are blended together to achieve more complexity after a total barrel time of about four-five months.

Malolactic is not desired at Acacia and seldom occurs. The wine is in new barrels from Francois Freres with medium char, for three-four months on lees and topped weekly after fermentation.

How do the winemakers finish their wines?

At Sonoma Vineyards, cold stabilization is done for two weeks at 28°. Bentonite fining is done to achieve heat stability. Most Chardonnays go through DE filtration unless the wine is real clean prior to EK filtration. The wine is bottled with 30 ppm free SO_2 and oxygen pick-up during bottling is closely monitored. Sayre would like to see a minimum of six months bottle age at 60°.

Acacia will do cold stabilization for two-three weeks at 35°. Four-eight pounds of bentonite per 1000 gallons is used to achieve heat stability. The wine goes through pad filtration to EK, through a milipore cartridge and sterile bottled. Brooks would like an ideal of 12 months bottle age with a minimum of six months. "Some of our wines may develop for five years, others mature sooner." says Brooks.

Arrowood adds one-three pounds of bentonite for heat stability. The wines are cold stabilized at 35° for two-three weeks. The wine goes through DE filtration, cellulose filter, polish filter through EK filtration. Wine is bottled with 30-35 ppm free SO_2. Arrowood suggests an ideal bottle age of 18-36 months at a consistent temperature between 55-65°.

At Grgich Hills, the wine does not receive cold stabilization, is filtered and bottled with 20 ppm free SO_2. Grgich's goal of bottle age is five years including the first year at the winery at a temperature of 50-60°.

Kistler uses polish filtration to remove most of the bentonite and bottles with 30 ppm free SO_2. Kistler likes 15 months of bottle age.

'We have tried no sulphur with real good fruit until after pressing with good success.'

—Rick Sayre

Cold stabilization is not done at La Crema Vinera. Two-four pounds of bentonite is used for achieving relative heat stability. The wine is polish-filtered and bottled with 30 ppm free SO_2. Berglund would like to bottle age one year.

Ortman does not cold stabilize his wines. After doing a bench test on the particular wines, two to four pounds of bentonite will be used for heat stability. Ortman does a loose filtration in the spring to remove any solids remaining and puts the wine through EK filtration before bottling.

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COMPUTER Holds Office Manpower Costs As Ridge Production Increases

(This story continues the series which explores the use of the computer in wineries.)

Since 1978, Ridge Winery in Cupertino, California has almost doubled its production, but with the installation of a computer that year and one more computer recently, the winery has not added any additional staff to handle the increased paperwork.

Ridge produced 48,000 gallons in 1976 and in 1978 when they produced 60,000 gallons, the winery engaged Pacific Data Systems of Palo Alto, California to install a computer and software system to handle many paperwork functions. With the 1981 crush yielding 105,000 gallons, Ridge has seen their computer systems grow right along with their expanding needs.

Ridge's staff makes extensive use of its computers. Seven areas currently on the computer are wholesale and retail order processing, wine inventory, accounts receivable, wine information reporting, payroll, model building and customer marketing.

Order processing is one area which has experienced tremendous growth at Ridge. The winery has an Advanced Tasting Program (ATP) which began in 1975 with 40 participants. Today, approximately every two months, a two-bottle sampler package is sent to over 1500 participants.

The computer is used for the ATP program to prepare invoices, print special UPS reports and automatically update each customer's account. The system also handles the cash receipts, makes the bank deposit report and produces a series of management reports.

In fact, it was the ATP program that first prompted Ridge to give serious thought to using a computer. Last year the winery started a second similar program called the Cabernet Tasting Program which sends two-bottle samples three times a year to several hundred subscribers.

The wholesale order processing system is similar in scope to the ATP retail program, but very different in execution. In the ATP system, the invoices are generated in mass and the wine allocated before each shipment. Wholesale processing creates invoices to customer requests and must be on line to the bottle inventory to check stock before committing to the order. The invoices can be tailored as needed with special shipping instructions or unique product descriptions as is required with some out-of-state shipments.

An important element of Ridge's software design is the creation and retention of one computer record for each line item ordered by a customer. These records are stored in a history file and can be accessed at any time.

An application of the history file is Ridge's Wine Information System. The system produces the required federal reports, and prepares special reports such as the out-of-bond report, tax paid report, and special analyses reports covering the wines produced and the sales made.

Ridge's data processsing was designed by Pacific Data Systems to use the work station concept. With a wide variety of desired computer applications it is important that many staff members be able to use the computer upon demand. Ridge does not have a "computer operator" or a "data processing department."

Each staff member has control of the computer programs required to do his or her job. Ridge's computer system uses the floppy diskette for storing programs and information data bases. Thus when any staff member needs to use the computer, he or she takes the required floppy disks to the computer and directly performs the desired processing.

This concept speeds processing by removing the data processing department scheduling process, as well as creating confidence and enthusiasm among Ridge's staff concerning their own capabilities. Each of Ridge's programs is menu-driven and fully interactive so that the staff can focus on the desired management results instead of becoming a computer programmer.

Computers supplied by Pacific Data Systems (PDS) are manufactured by Digital Equipment Corporation (DEC). PDS designed and produced the software application programs and assisted Ridge with on-site installation and training.

The initial computer delivered in 1978 was a DEC system 310. In 1982 an additional DEC 78/50 system was installed. Each system is self-contained with a video display terminal,

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two floppy diskette external storage units, a 32,000 character internal storage processing unit and a 180 character per second matrix printer. The computer application software was written by PDS using Digital's Dibol language.

Ridge's initial investment in 1978 for the first computer and the software development came to just under $30,000. The second computer cost less than $10,000 and is fully compatible with the initial system so that the original programs did not need to be modified. The reduced costs of the second machine represents the reduction in hardware costs since the first system was installed.

Dave Bennion, president of Ridge, says that the computers equal at least two full-time clerks and have paid for themselves several times over.

In addition to the winery's on-site Digital computers, it has purchased an Apple II computer for the use of a part-time employee at an off-site location. The Apple is used for financial reports and projections.

John Hubbard of PDS feels that the wineries giving thought to the use of on-site computers should look at equipment in three categories: systems selling for under $10,000 (hardware and software) wherein the user is willing and anxious to do his/her own installation and program design; systems selling in the $15,000 to $35,000 range where the winery desires outside assistance in design and implementation in a number of application areas; and systems selling for $40,000 and up wherein either winery volumes put the winery above the smaller or mid-size winery or where a multi-terminal 'on-line' system is desired.

Hubbard says that most data processing systems will require a period of approximately one year to become fully implemented. "While it is true that many applications can be running successfully in a very short time, experience has shown that the wise winery will have a well laid-out plan stretching over several months for full implementation," he says.

Ridge payroll has been processed through data processing for over two years.

A customer marketing system is used to produce a variety of information and lists/labels relating to Ridge's customer data base. This system calls upon the customer master files created and controlled by the responsible staff member in both the wholesale and retail order processing systems. Customer lists are constantly updated. The use of separate, possibly inaccurate lists is avoided.

Ridge is continuing to push its computer ability into new applications. The new model building program is being set up to make sales and production forecasts. The currently installed bottle inventory program has provision for bulk inventory control and Ridge hopes to implement its use in 1982.

"In many ways Ridge Vineyards has demonstrated that small to medium size wineries can make very cost effective use of a computer," concludes Hubbard. ■

A.S.E. Booth 117

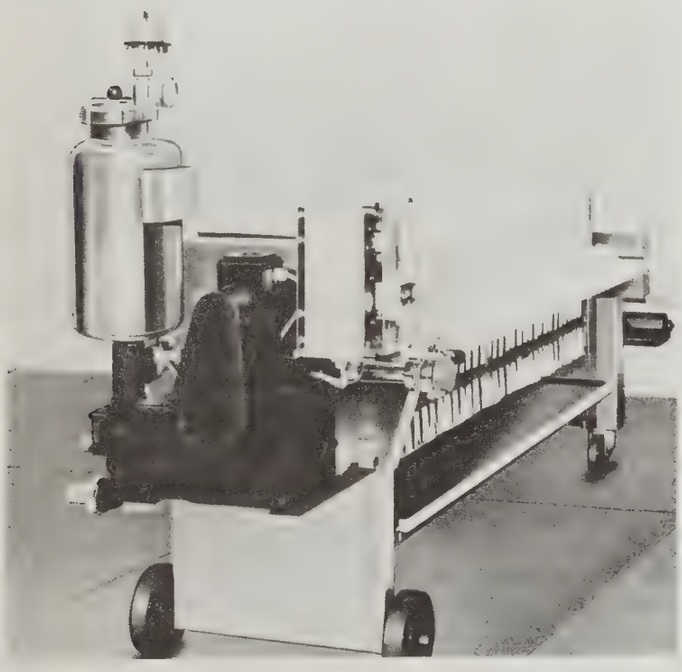
LEES FILTER-PRESS Winemakers Reap Multiple Benefits

More and more winemakers are adding a lees filter-press to their winery not only as a tool to reduce waste disposal but because the machine recovers more juice or wine, giving the winery more potential wine sales from the same quantity of grapes crushed.

Winemakers are using the machine to gain recovery from settled fresh juice tank bottoms, yeast lees, and fining lees.

Several winemakers who make Chenin Blanc, Johannisberg Riesling, Sauvignon Blanc, Semillon, or Chardonnay, are putting the fresh lees from the tank bottom settling into the machine the same day that the juice is racked off. They are recovering juice equal in quality to free run.

Walter Raymond of Raymond Vineyard, St. Helena, CA, who crushed 160 tons of Chardonnay in 1981 believes that the juice recovered from the tank bottom previously lost to the dump, paid for the machine in one crush. Raymond has ordered the same unit to be delivered to Guenoc Winery for the '82 crush where he is also the winemaker.



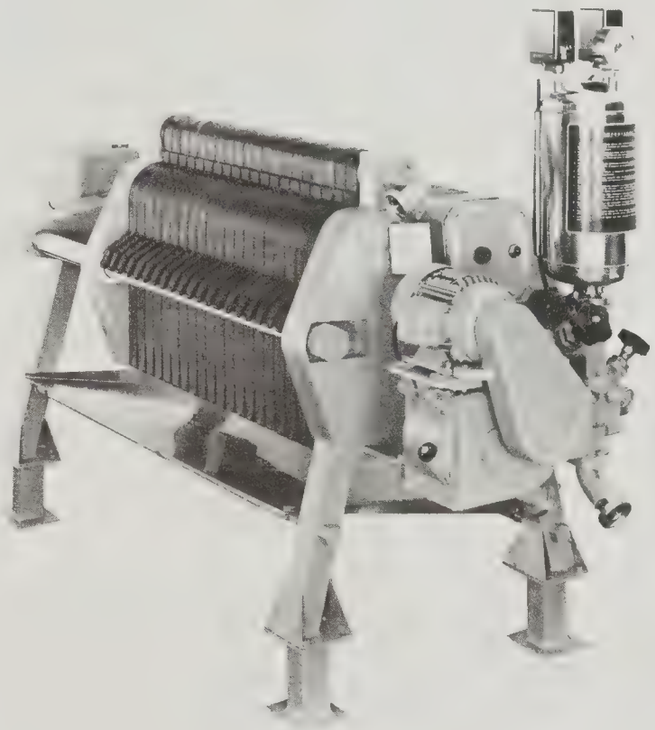
SCHENK LEES FILTER

On Raymond's recommendation, Leonard Olson of Tabor Hill in Buchanan, Michigan bought the machine for his 90,000 gallon facility. He processed lees before fermentation, yeast settlings and Sparkaloid settlings through the press.

"Juice recovery is so good, I would make it one of my first equipment purchases if I were to start a new facility," reports Olson. Olson has computed that the machine will pay for itself in a maximum of three years or sooner. The machine's use has reduced Tabor Hill's demand on their septic system.

In 1980, Bully Hill in Hammondsport, New York, bought the machine to process fermentation lees. The recovered wine from red and white grapes goes into a Lambrusco product being made in small batches to test sales. 1000 cases made from the '80 vintage has sold out.

"The solids used to go down the drain after settling. Now the dry solids go to the dump and we have reduced our demand on the winery leach system," says Dana Keeler of Bully Hill. Bull Hill has a closed system to minimize oxidation to the wine after filtering, Keeler adds.



COMES LEES FILTER

Sterling Vineyard in Calistoga, CA, purchased the press for the '80 crush according to Theo Rosenbrand, winemaker. Juice settlings from Chardonnay, Sauvignon Blanc and Semillon have been processed, yielding juice quality equal to free run. Processing occurs after 24-48 hours of settling.

Bentonite settlings are processed at Sterling, reducing the customary waste to be disposed of. All recovered red wine goes into a 'house' bottling available only to visitors at the winery. Recovered white wine from bentonite settlings is sold as bulk wine. White wine recovered from yeast lees goes into a 'house' bottling available only at the winery. Settlings from gelatin or eggwhite fining on Cabernet and Merlot are also processed.

Tony Soter, consultant to several Napa Valley wineries, has seen juice lees from Chardonnay, Johannisberg Riesling, Sauvignon Blanc, and Chenin Blanc processed through a lees press during the '81 harvest and is enthusiastic about potential rewards.

One of Soter's clients, Chappellet Vineyard in St. Helena, CA, is planning to crush 300 tons of white grapes in 1982 and is counting on 3000 gallons of juice which would have been lost without the machine.

"For Chappellet, yields such as these make it almost imperative that one invest the 12 to 15,000 dollars for a lees press. It's the only machine in the winery that makes money!" says Soter.

Soter feels that it is important to process lees while fresh to maximize both quality and monetary return. Soter notes that the machines do not require constant nor skilled attendance while running automatically. But, they are slow, not easy to clean and can be a dangerous source of contamination. On Soter's recommendation, his other client wineries plan to purchase a machine as soon as possible.

At Cuvaison in Calistoga, CA, John Thatcher reports that juice from Chardonnay settlings are put in with first label free run juice. The lees filter is used on barrel settlings from red wine, as a DE filter on reds, and egg-white finings are processed with the machine.

Norman deLeuze of ZD Wines in Napa, CA, is using the machine to filter juice lees and fermentation lees. The lees are then plowed into the vineyard. Bentonite settlings are processed and DE filtering of red wines is done with the lees press.

At Domaine Chandon in Yountville, CA, the lees press is used as a waste reduction tool to process juice lees before fermentation and juice is sold as distilling material according to Gino Zepponi. After fermentation, the yeast lees are processed and some wine is sold as bulk wine and the remainder as distilling material.

David Whitehouse of Trefethen Vineyard in Napa, CA, reports that they have increased their Chardonnay juice yield by nine gallons/ton with the press. Whitehouse reports an efficient 70 percent recovery on 30-35 percent solids white juice lees. Trefethen recovered 40-45 percent from red yeast lees which went into red table wine.

"We have reduced the demand on our aeration pond, less aeration—a smaller electric demand. Based on Napa Valley Chardonnay grape prices, the increased juice yield paid for the machine in two to five days after handling 100 tons," says Whitehouse.

At Joseph Phelps Vineyard in St. Helena, CA, yeast settlings go through the lees filter and rough DE filtering is done with the machine and bentonite settlings are processed through it. The lees previously went through the waste disposal system, but now the yeast and bentonite cake are plowed into the vineyard, reducing demand on the system. Wine recovery paid for the machine in one year, according to Craig Williams.

George Guglielmo of Emilio Guglielmo Winery in Morgan Hill, CA, originally bought a lees filter in 1972 when red grapes were scarce and expensive. He recovered 60-75 percent which went into his jug wine. Today, he processes

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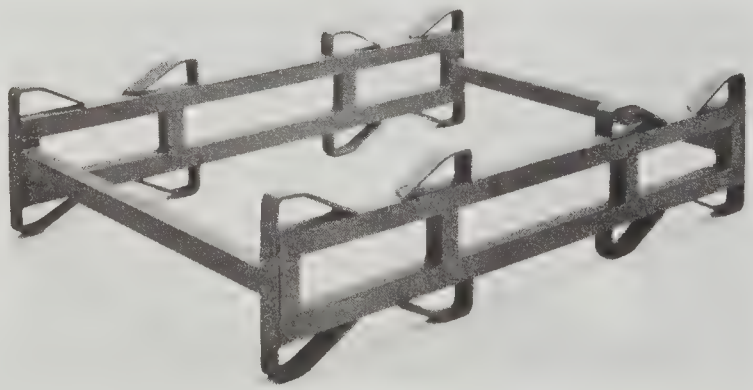

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all red and white lees together and sells the wine for vinegar stock at $.65 per gallon with the buyer paying the trucking. Unprocessed lees sold as distilling material are worth $.35 per gallon and the winery pays the trucking.

Fetzer Vineyards of Redwood Valley, CA, has ordered a lees filter for 1982 delivery to recover juice which has gone down the drain to the settling ponds at the winery. Paul Dolan of Fetzer, feels the lees filter will do a quicker and more efficient job on the lees that are over ten percent solids than a centrifuge. Yeast and bentonite lees will also be processed, further reducing the demand on the aeration ponds. Dolan has projected that juice and wine recovery in three weeks during crush will recapture the cost of the machine.

Hacienda Wine Cellars in Sonoma, CA, has ordered a lees filter for 1982 delivery to recover juice and reduce the load on their septic system. Steve MacRostie, winemaker, believes the lees filter to be a less expensive and more efficient tool for the job than a centrifuge.

Manufacturer and distributor of lees filters are as follows: AMF Padovan, Filtrex, Inc.; Comes, Compleat Winemaker; Garolla, Budde & Westermann and fp Packaging; Schenk, Scott Laboratories; Taurus, SWK Machines.

Vendors have offered the following guide to determine size of machine for a particular winery: 1) for filtration of juice and sweet lees: approximately one square meter of surface for every two tons of grapes crushed per day; 2) for fermented lees: approximatley 20-40 gallons per day per square meter; 3) for wine filtration; approximately 300-600 gallons per hour per square meter.

Scott Laboratories suggested the following numbers to help justify payback of the machine: If you crush 100 tons of Chardonnay, yielding 170 gallons per ton (valued at $1,000 per ton), you normally throw away the bottom 10 gallons. Use the lees filter at 70 percent recovery to gain an extra seven gallons multiplied by 100 tons, delivers 700 gallons extra, valued at a raw cost of $5.80 per gallon, delivers $4,116.00 extra juice.

As Practical Winery went to press, several vendors reported many orders for delivery by the '82 crush via ocean freight. Air-freight orders might still be arranged to meet the '82 crush. ■

PAST ISSUES

Practical Winery is based on useful articles and comment, it does not become useless as the calendar pages turn. We have the pleasure of offering the following back issues at a cost of $5 per copy.

VOLUME 1, NO. 1
Interview with Josh Jensen of Calera Wine Co.
Francis Mahoney of Carneros Creek
Sugar Determination via the Rebline method
Cleaning up the Refrigeration System
Many Practical Ideas

VOLUME 1, NO. 2
Interview with Jed Steele of Edmeades Vineyards
Ken Burnap of Santa Cruz Mountain Vineyards
SO_2 via Iodide-Iodate
Principles of Depth Filtration
Polyethelene Tanks
Robert Pecota on saving energy

VOLUME 1, NO. 3
Interview with Jim Lawrence of Lawrence Winery
SO_2 via Ripper method and Platinum Electrode
Tartrate Stability
Practical Ideas of Arterberry Ltd.; Carey Cellars
Bruce Rector on Wood

VOLUME 1, NO. 4
Interview with Richard Keene of McDowell Valley Vineyards
Enzymatic Wine Analysis
Acid Reduction by Jed Steele
Pumping Over
Enzymatic Wine Analysis

VOLUME 1, NO. 5
Interview with Bob Rodgers of Custom Cooperage
Safe Production and Use of Liquid SO_2
History of Nouveau Production

VOLUME 1, NO. 6
Interview with Anthony Claiborne of Rico's Winery, New Mexico
Fining Wines in 1888
Practical ideas of John Kenworthy

VOLUME II, NO. 1
Interview with Doug Meador and Ken Wright of Ventana Vineyards
Basics of Depth Filtration, Part I
Filter Media Cross-Reference Chart
Oliver Kilham on Wine Filtration
Purchase and Use of a Centrifuge

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Interview with Mike Miller of Moon Valley Circuits
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William Ghiglieri of Turner Winery
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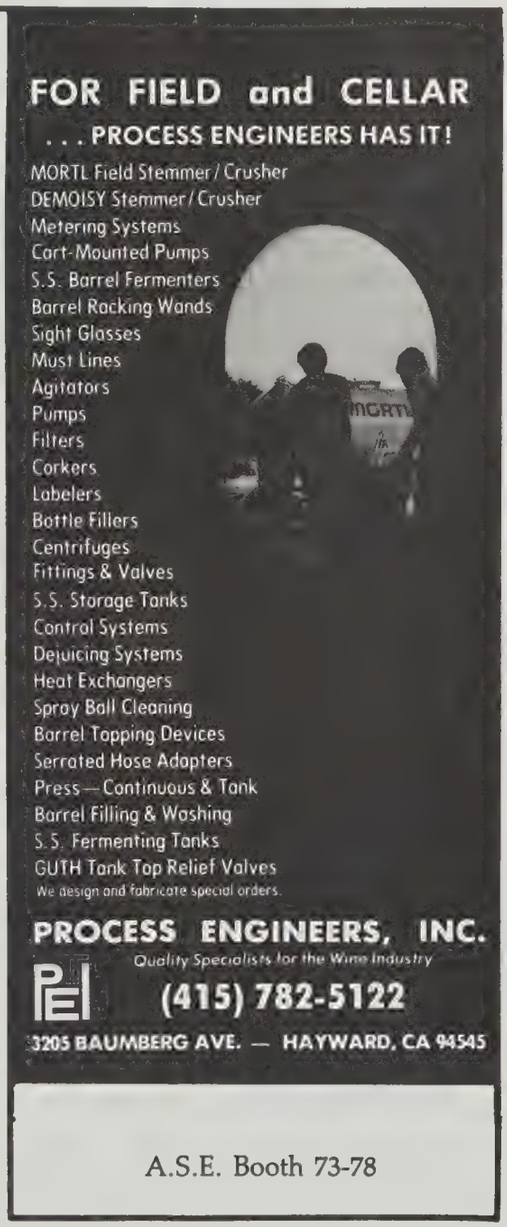
Al Cribari on Malolactic Fermentation
Silicone Barrel Bungs
Computer at Kenwood
Steel Barrel Racks
Ralph Montali on Marketing
Education: Oregon State University



A.S.E. Booth 73-78

INDEPENDENT LABORATORIES

Practical Winery contacted four laboratories and received the following topical responses which they felt would be of interest to our readers.

ENOLOGICAL TECHNICAL SERVICE

Gordon and Marjorie Burns

PW: What do you see in the future for independent wine laboratories?

GB: One of the most visible trends is that, as costs continue to escalate, larger wineries are finding it preferable to make use of independent laboratories for analyses outside of their daily routines.

For example, although the importance of metals such as calcium, potassium, copper and iron with regard to wine stability is well known, few wineries can cost justify atomic absorption spectraphotometry which is currently the preferred method for their determination.

Many smaller wineries are finding that with reliable and prompt independent laboratory services available, they cannot economically justify performing other than the most routine analyses in-house.

MB: Analytical information which has long been considered essential to the informed winemaking process by large wineries has only recently begun to find acceptance and routine application by smaller producers.

As an example, determination of potassium bitartrate stability was suggested by Berg and Keefer over twenty years ago. Until recently, however, the method has been applied primarily by large wineries while others have relied upon various empirical tests with mixed success.

The independent wine laboratory allows all winemakers access to analytical methodologies previously feasible only for the largest producers.

GB: As exports of U.S. wines continue to grow, wineries are regularly confronted with regulations and analytical requirements seldom seen in this country. We are certified by the BATF to perform V.I.I. analyses for export of wines to the European Economic Community and routinely assist wineries and exporters in meeting overseas requirements.

Recently, Switzerland imposed a limit on the histamine content of wines entering their country and we have consequently screened several shipments of wine to assure that they will not run afoul of the regulation.

PW: What can you offer the winery beyond analysis?

MB: Analytical results are of value only as tools to be applied in planning, quality control, and problem solving. E.T.S. was established to provide technical assistance and consultation supported by reliable analytical information. Our services to wineries currently range from "surrogate winemaker" functions to occasional analysis without comment.

PW: What can you tell us about your background?

MB: From an extensive background of clinical microbiology and chemistry, I moved to Davis and com-

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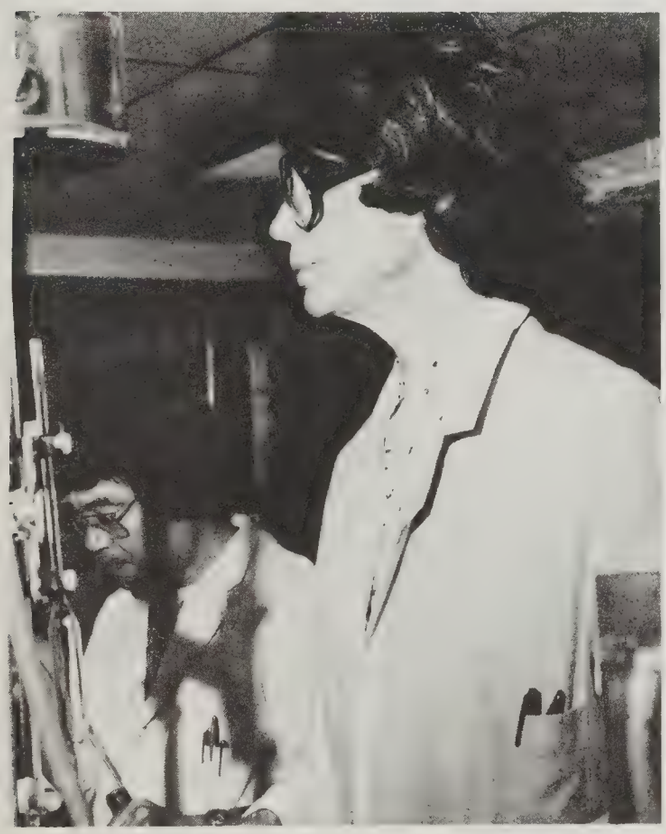
What Do They Offer The Production Winery?

pleted the Masters program in microbiology with a specialty in enology. After leaving Davis, I was instructor of enology for Napa College and was employed by two Napa Valley wineries in all aspects of production before founding E.T.S. Gordon is a transplant to the industry from management of an international engineering and plant construction group.

PW: How should the winemaker evaluate independent wine laboratories?
GB: In the same way that he would any other essential professional service. Reliability, efficiency, promptness, confidentiality, and reasonable fees should be expected.

SCOTT LABORATORIES



Kent Sakato and Wilma Smith – Robert Scott, company president, answers questions from PW.

PW: What do you see as the roll of the independent laboratory?
RSS: First perhaps the question should be what is the roll of any laboratory for a winery. For many of the criteria which separate a poor wine from a good wine, from a great wine, the trained human senses of taste, smell and sight are much more acute than the most expensive instruments and procedures. This being so, people often ask, "Why waste the time and money on the nonsense of test tubes and stills when I have a superior palate?" There are several answers.

First, the law. Several times a year we run into customers who have printed labels and sometimes put them on bottles only to find that the alcohol of the wine in the bottle is not legally within the limits prescribed for that label. This costly little problem has an added bite when the wine happens to run on the wrong side of 14% where the tax changes. I have yet to see the most skilled palate which can tell the difference between 13.9% alcohol and 14.1% alcohol.

A second is the need for continuity. Grapes vary from year to year. Most skilled winemakers, however, like to and should preserve a continuity of their style from year to year. Having objective numbers on such things as total acidity, pH, residual sugar – especially if there is a change of winemaker from one year to the next – is important.

Third is the need to have the facts on those things which the human senses cannot pick up. Things which can cause problems to wine after bottling. Examples are copper and iron and microbiological infections. Another reason is that human memory cannot replace hard numbers where rates of change are involved. The glaring example of this is increase in volatile acidity. Human senses can pick up VA long before it reaches legal limits but they are not good at differentiating between .012 and .024. After a week or so, the .012 control is not longer available in comparative tasting. Yet this weekly increase, though small, shows an active acitobacter infection. Unless remedial action is taken promptly, the winery will have become a vinegar factory. Finally, cellar procedures which are based upon a laboratory simulation are most cost effective and produce better wine than from experimenting on production lots. The easy example of this is clarification trials.

Now you ask about commercial laboratories. Most of the things listed above can be performed in the simplest winery laboratory. Yet it is often better and more cost effective for the winery to send out some, if not all, of the work listed above. In addition to the cost effectiveness of having an extra pair of intelligent hands for rent, we and most laboratories, have the experience to resolve the major technical problems which come up from time to time. We are also certified by the BATF and the EEC to provide VI 1 examinations on wines for export to Europe and other countries.

Finally as an independent third party we are often called upon to take or analyze inventories – sometimes for banks, sometimes for CPA firms, sometimes for wineries themselves. All know that with an independent report they can strike a better bargain with others.

PW: You mentioned things which could cause trouble after bottling. What do you mean by that?

RSS: Copper and iron are no longer the problems they once were thanks largely to the general use of stainless steel. But a very small amount of copper can cause a casse in the bottle under reducing conditions. Anything over 0.2 ppm is generally cause for concern.

Iron under oxidative conditions can catalyze a casse. Here anything over 5 to 6 ppm should be suspect. It is easy to check these, just as an insurance policy, before bottling. We use our atomic absorption unit but a small winery can use the same wet method we used for years. It's in Amerine's book.

Microbiological problems represent another group which can't be seen or heard and yet can cause problems. Tight filtration through a good filter sheet, perhaps even insured by passage through .45 micron membrane can insure sterility at that instant. After that the remainder of the bottling system, including the bottle, the cork and all equipment should be watched.

The most effective procedure is to insure that all components of the bottling system are sterile. Lacking that, it is far cheaper to rebottle wine which is still in the winery than it is to let that wine get out in the marketplace before trouble is discovered.

PW: How often should all these tests be run?

RSS: Alcohol, TA and residual sugar should be run on each component of a blend. The final result can be run or calculated. Total and free SO_2 should be run periodically. Unless free SO_2 levels are maintained, VA should be run regularly every month in cool weather and should be taken promptly.

Unless a malolactic fermentation is not desired and proper preventive action is taken, wine should be inoculated and a paper chromotographic record kept until ML is complete. A microbiological analysis should be made at the earliest sign of any unwanted infection, and again on at least post bottling samples.

Copper and iron should be checked just before final clarification which should come after laboratory trials for heat and cold stability and best clarification procedure for that particular wine or blend.

PW: Several times you have mentioned experience. What experience does Scott Laboratories have?

RSS: Our wine laboratory director is Kent Sakato. Kent studied enology at Davis and has both a bachelors and masters degree from there. More important I believe is that with great regularity Kent comes up with right answers and gives them to people in a manner which they can understand and use. Working with him are a graduate enologist, two chemists and a microbiologist.

Supplementing these people, we have in sales and service—personnel who have masters degrees in enology and food technology from Fresno State and Oregon State respectively plus graduates in enology, food technology and chemistry.

Finally we were known for our first 32 years as Berkeley Yeast Laboratory. It has only been since 1965 when we moved from Berkeley that we've been known as Scott Laboratories, Inc.

When Julius Fessler started Berkeley Yeast after repeal, he consulted for everyone on every subject. Now, the questions and problems are far more sophisticated but they continue. The availability of modern equipment and almost 50 years of experience and records makes answers possible.

PW: Why the plural word laboratories?

RSS: I don't really know. But we do have a water laboratory state certified for chemical, microbiological and radiological work and a separate and discrete filtration laboratory so let's put it down to that.

PW: Why should people come to you rather than to another laboratory?

RSS: Often they should not. In both Napa and Sonoma

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there are wine analytical laboratories with excellent people. In many wine areas there are first rate consultants available who can perform most analyses. Where such facilities are not available we are often most convenient.

Because of our size we can often return results more rapidly than an overloaded lab down the road. Finally our size and experience sometimes make it possible for us to answer more specialized or unusual problems. Our booklet of standard tests, reagents and laboratory equipment is available for the asking.

VINQUIRY

(L to R) Shirley Molinari, Mary Ann Graf, and Marty Bannister.

PW: What is the background of the Vinquiry staff?

MB: Mary Ann has 16 years in the wine industry including six years at Simi Winery as winemaker. After completing a masters program in food and nutrition, I worked at Sonoma Vineyards five years as director of quality control. Shirley Molinari, our lab technician, has a degree in biochemistry.

PW: Who uses independent wine laboratories?

MAG: We have a full spectrum of clients. The most common client of analytical services is the winemaker at a small winery. The responsibilities of the winemaker are extremely diverse; they may include vineyard management, public relations, marketing, accounting, and winemaking—including cellar operations. We can take the pressure off of the analytical aspect and provide advisory services as well. In other situations, we may do back up or specialized analysis for a larger winery, evaluations for winery purchases, provide analysis for cases involving litigation. We have also worked for bottlers, cork vendors, negociants, importers, exporters, and retailers.

PW: How early in the winemaking process, might Vinquiry become involved?

MB: At the point of field testing and crushing. We provide analysis from fermentation, though aging, finishing, and bottling.

PW: What information do winemakers need at the time of harvest?

MAG: Generally pH, titratable acidity, tartic acid and malic acid. More winemakers are now expanding their backlog of knowledge of their wines, creating a history that will be useful in future decision making.

PW: What information will help the winemaker during fermentation?

MB: Winemakers are charting their fermentations and may look to us for verification of acid corrections and monitoring of ML fermentation. When a winemaker is striving to achieve a particular style such as stopping a fermentation at a specific sugar or alcohol level, we can advise on final manipulations. For instance, as the fermentation approaches the desired stopping point, the winery will begin fine-tuning by reducing the temperature of the fermentor and send us samples for precise measurement of sugar and alcohol. This may take several samplings to achieve the desired balance and when the wine reaches the correct level, the winemaker is ready to stop the fermentation by immediate chilling, racking, fining, or centrifuging.

PW: What is your analysis response time to the winemaker?

MAG: In the above example, it might take an hour. More typical analysis is completed in two days. Microbiological or other specialized procedures require a week to ten days. The wine samples often determine our schedules. Our practical experience enables us to recognize and respond to a winemaker's problems as needed.

PW: After fermentation, what can you offer the winemaker?

MAG: That differs among our clients. We may do all of their routine analysis on a contract basis. For some, we consult as well as analyze. We can provide analytical services at critical stages such as end of fermentation, transfer to barrels for aging, finishing or problem solving whenever that may arise.

PW: Why are more wine laboratories busier today than in past years?

MAG: One obvious answer is that there are more wineries. A larger part of the answer is that winemakers are involved in a continuing process of refinement. As control of the vinification process gets better, analytical data becomes more and more useful. The closer one focuses, the more important the fine details become. More information gives a winemaker more control; decisions can be made from a more informed foundation.

PW: What are common pitfalls of the winemaking process that you can help the winemakers avoid?

MAG: Not making assumptions! Get all the information you can—then make decisions that give you the most control.

PW: Are these analyses cost-effective?
MAG: Yes, in two ways. The cost of maintaining a fully diversified laboratory is not within the means of many wineries. The range of analyses available enables the winemaker to make judgments on the stability of the wine before they incur the expense of bottling.

PW: What tests do you recommend for the winemaker who desires to make a wine which is unfined and unfiltered?

MB: We can determine the actual levels of malic acid and fermentable sugars. We can culture for spoilage organisms such as Brettanomyces. With this information, we can make judgments regarding the biological stability of the wine.

PW: Can you help a winemaker develop fining treatments?

MAG: Yes, in the case of white wines or roses, we can determine the optimum level of bentonite application to achieve protein stability. Sometimes fining treatments are straightforward, but some wines might require some other fining agents to achieve the desired clarity or modification. On some whites or reds we have been asked to test for a fining which will reduce or prevent browning or to lower the astringency. When the treatment begins to modify the wine, the winemaker needs to get involved to evaluate the results as fining can affect their winemaking style. Usually, the winemaker will come to our laboratory and taste the wines with us or take the trials back to the winery for evaluation. If the client is far away, we will discuss the results over the phone to determine the best treatment. It is always best if the client can interact with us here.

THE WINE LAB

(L to R) Lisa Van de Water, Ken Vigoda, and Jim Takahashi.

PW: What are examples of wine microbiological problems?

JT: There are many things which can go wrong in a wine. For example, a simple depletion of a specific nutrient in a wine must may stimulate the yeast to produce off flavors and odors, or it might halt the fermentation and therein allow for a nasty infection of some undesirable organism.

A wine which goes through malolactic fermentation may not have gone through with "good" bacteria. An incorrect analysis or diagnosis can commit the winemaker to subsequent inadequate handling and protection of the wine.

The sheer number of wine samples passing through the independent laboratory guarantees a wide exposure of the staff to just about everything which can go wrong with a wine. Even if a winery has the resources to maintain a microbiology lab as a part of the winery operation, few can afford to conduct extensive research into potential problem areas.

The independent laboratory is often confronted with a spoiled wine which was destroyed by some factor which was overlooked or considered insignificant by the mainstream of research, and it is up to the independent laboratories to investigate that potential danger.

PW: What is the story on the spoilage yeast—*dekkera?*

JT: Many people still refer to this spoilage yeast as *Brettanomyces.* It is not generally considered a problem by larger wineries because it can be effectively controlled through routine sterile filtration of wines which might be infected. It is an insidious menace to the small producer, since many winemakers are not aware of the potential for a problem due to the lack of discussion in the industry.

A *Dekkera* infection can ruin a small winery if left undetected and untreated. A few spoiled barrels of premium wine may not be a significant loss for a large producer, but the small winery cannot often afford to dispose of even a few hundred gallons of off-flavored wine. A desperate winemaker might attempt to finesse the problem through "creative blending," which will infect an entire bottling.

The early stages of a *Dekkera* infection can create a rather attractive aroma, which has led to a few "special releases" of seemingly superior wines, only to follow with the tragedy of that special lot being returned to the winery as a cloudy, fouled wine. The only solution for a small winery with a problem of infection by this spoilage organism may be to get rid of all the affected cooperage. These are tremendous blows to the reputation and economy of the small winery.

The independent laboratories have alerted winemakers to the *Dekkera* threat. Through the efforts of The Wine Lab and other labs, few small wineries will seriously consider purchasing used cooperage for their aging and storage needs.

We jokingly refer to *Dekkera* as a "social disease" since there must be a physical connection between infected wine or barrel and the next victim wine. *Dekkera* does not come into the winery with the grapes, but may lie dormant in the purchased topping wine.

PW: What must a winemaker consider when he chooses a yeast?

JT: There are quite a number of different strains and population cultures of yeasts and bacteria available commercially as dry or liquid inoccula. Some of the two dozen or more cultures being sold have the same name on the label but come from different sources and do not contain the same yeast strains. For example, there are at least three versions of Steinberg yeast cultures being sold.

Each type can contribute certain characteristics to the finished wine or to the ease of fermentation and processing. The effects of each culture will vary greatly with the specific grape variety, the region where the fruit was grown, the ripeness of the grapes, the chemical balance of the must and the cellaring conditions.

PW: How can an independent laboratory help the winemaker choose the right yeast?

JT: The small winery and the individual winemaker seldom have the time and the luxury of running controlled, side-by-side fermentations of the same musts with different cultures. We have years of experience with musts of a gauntlet of differences, and have tested the many strains of yeast and bacteria against most variables. The staff of the laboratory can thus refer to practical experience from the controlled experiments and from the commercial examples of their clients to help a vintner make an educated choice of inoccula for specific desired characteristics.

PW: Is lab analysis after bottling important?

JT: Very. Routine testing of newly bottled wine has spread through the industry as a precautionary measure against the possibilities of major mishaps due to an unsuspected infection by spoilage organisms. Even with today's sterile bottling lines, there is a chance that one little corner of the apparatus harbored a yeast or bacteria population and was spread throughout the bottling run downstream of the filter. Only post bottling microbiological examination can give the winemaker some peace of mind. It is also becoming a common practice for purchasers of bulk wines to send samples to labs for a micro exam before accepting delivery.

PW: What is the background of the Wine Lab's staff?

JT: Lisa Van de Water worked as a researcher in chromasomal analytical laboratories in Washington, D.C. and Colorado before coming to California to join the Robert Mondavi Winery as an experimental enologist. She started Wine Lab in 1975 and has since served as consultant to wineries throughout the United States.

Ken Vigoda, who serves as laboratory manager for Wine Lab, is an organic chemist. Before joining the wine industry, he worked for a private endocrine analysis laboratory in Los Angeles.

Jim Takahashi started his career teaching wine appreciation courses in New York City and later worked as the winemaster of Hargrave Vineyards on Long Island. Before joining Wine Lab as retail manager, he was affiliated with Domaine Chandon. ■

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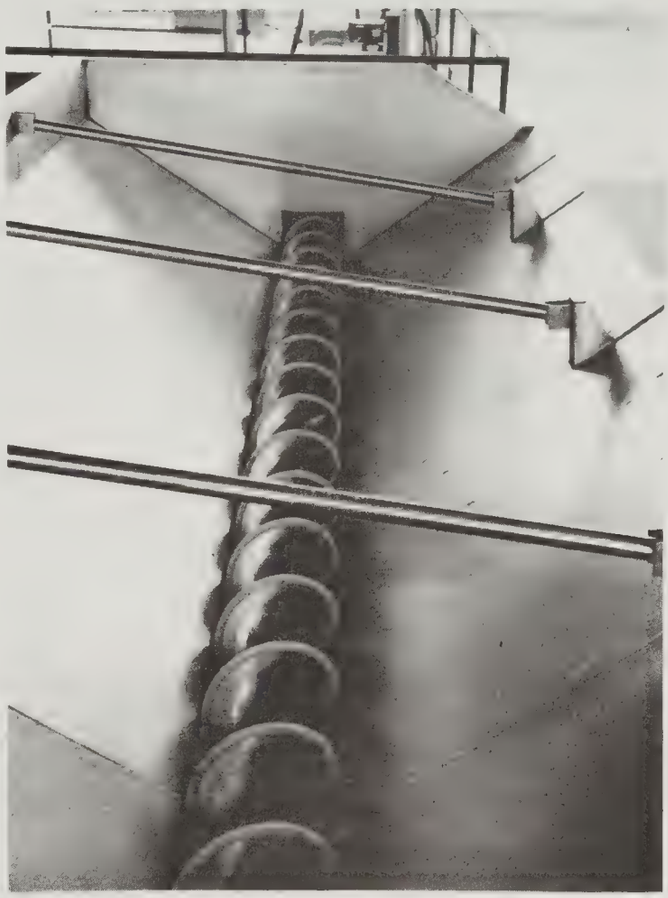

RECEIVING HOPPER—Silverado Vineyard has one of ten hoppers installed by Winery Equipment Systems of Napa, CA. The hopper utilizes an auger lined with flight edging (high density polyurethane) which acts as the bearing surface eliminating the need for center bearings where grape masceration might occur. In addition to the flight edging bearing on the surface of the trough, there are bearings at each end of the hopper to support the auger. The auger sits in a modified u-shape trough, built and designed by Winery Equipment Systems. The hopper has been built in 12, 16, and 20 foot lengths with a four foot discharge chute and a choice of single or more versatile variable speed drive. Custom lengths are available to fit site requirements.

CONSULTANTS

Con't. from p. 11

tant to bounce problems off, to taste the wine. I do not see a problem there.

BR: It is conceivable, if the skills the winery needs require consultants whose strengths lie in different areas such as winemaking and winery design.

I would not recommend having two consultants to advise you in making wine however, unless they work together as a team. The results would only cause confusion. I'd change consultants if I wasn't happy with the results I was getting, rather than hire additional advisors.

PW: Are there services that one of you don't or wouldn't offer?

CO: Definitely! Although I've been a graphic artist, I would never provide label design for a client. There are people who do an excellent job with labels, so I refer my clients to the professionals. I do like to offer my input about package and label design though, because I think that it's too important a thing to be overlooked.

I don't do architectural work either, but I insist on working with the architect to reduce the number of design problems that inevitably occur.

BR: And, of course, we don't go out selling wine although we can refer a client to people who do an excellent job of that. We can and have done sales letters and related services, but no actual selling.

PW: Larry, do you involve yourself in the marketing of wines?

LW: No, I don't feel I have the background in marketing—things happen so quickly there and the market changes with the different areas of the country. You really need somebody who knows what he is doing. I have pretty much stayed on the production and technical side; there are a lot less headaches there.

BR: We're very strongly market-oriented in every phase of consulting, but we don't become physically involved in calling on accounts. We make a point of knowing the marketplace so that we can make recommendations with some assurance, based on years of experience and educated guessing.

My retail wine experience has helped me to see and understand the problems more clearly. I certainly have some convictions about what is happening and why.

CO: I have had my own wines on the market for two years now, and have had to deal with all phases of marketing, including calling on accounts. I have made a few mistakes, but because of those mistakes I've learned a lot. I have some definite ideas about how to sell wine myself.

PW: Chuck, are you basically a Napa Valley consultant?

CO: Not at all! I've had some success with Edna Valley grapes, and I'd love to have the opportunity to make wine in Washington, Oregon, Idaho, and in other areas of California also.

PW: Larry, being a consultant in various regions, you have the ability to work with a number of different varieties in each region. Do you have any predictions about what varieties will dominate in the various regions in ten years?

LW: I think the people who will be the most successful in the next ten years will be those who have the best clonal selections for an area, and that obviously takes some time to determine. Also successful, will be those who have enough of the so-called minor varieties for blending stock to really produce truly fine wines.

An example would be the Cabernet type varieties for blending. In spite of what the law is now, I can see where portions of Cabernet Franc, Merlot and even Malbec might be a good blend to have, so you can adjust your master blend every year depending on the seasonal conditions.

Pinot Noir and Riesling are perfect examples where clones are more important than any other variety in the Napa Valley. One of my clients has six different clones of Pinot Noir in his vineyard and we make small lots of wine from each. We will be grafting the poorer clones over to the better ones. Andre Tchelistcheff has talked about this problem in detail.

With Pinot Noir, there are vertical growing clones as opposed to horizontal growing clones and there is no question that the horizontal growers are the true Pinot Noir where the vertical growers are probably Gamay. The lots we made from the vertical growers might as well be Rosé.

PW: Are these all 'clean' clones?

LW: Yes, but the vines look different; even the color of the leaves, the shades of green are very different. You can look across the vineyard and see the difference in the color of the leaves. These differences also show up in how you should treat the wines in the cellar. Pinot has so many facets that have to be dealt with before we really produce a really superior quality wine.

PW: Do you have a personal lab?

LW: Yes, I have a small lab for basic analysis, but for more sophisticated things, I send samples out to Vinquiry, Wine Lab or Enological Testing Service.

PW: What are some of the more common problems you encounter in small wineries?

CO: Other than the potential for problems that come from inexperience, and the difficulties that arise from having poor quality grapes which may represent your entire production for the year, I have encountered few, if any real problems.

LW: The problems brought about by lack of experience—the lack of attention to detail; like VA, some yeast spoilage like Brettanomyces where SO_2 levels were not maintained; barrels not being topped periodically.

PW: How do you recommend treating Brettanomyces?

LW: Get the malolactic fermentation completed with the alcoholic fermentation, or very soon after and maintain free SO_2 levels at about 30 to 35 ppm free.

PW: This is for red wine in barrels?

LW: Yes, I have not seen too many problems with white wines and Brettanomyces. I was at Mondavi when the problem first surfaced, and we worked 18 months on that, but again very rarely with whites. I have seen only two white wines with such a problem.

PW: A lot of these small wineries do not have much temperature control, so what do they do if MLF has not finished?

LW: Go to barrel with it as soon as it cleans up and keep maintenance levels of 10 ppm SO_2 until warmer weather. I have not had satisfactory results with trying to warm wines to speed MLF completion.

PW: A few wines from several small wineries recently had noticeably high SO_2, how do you advise your clients on this situation?

CO: That really isn't a new problem, but circumstances are different now than they were fifteen years ago. In the late sixties and early seventies, we didn't have Brettanomyces to deal with, and we also had DEPC as an option in bottling. Now there are greater numbers of new producers without much winemaking experience and too many wines are reaching store shelves too soon after being bottled.

My clients' SO_2 levels are carefully maintained to protect

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the wine. If you have a wine with Brettanomyces or a high pH, your SO_2 levels will have to be higher. Generally speaking, I like to keep an SO_2 level of about 20 ppm free during aging in cask and 25 to 30 ppm at bottling depending upon the individual wine, the condition and quality of the bottling equipment, and the availability of hot water or steam. I also urge my clients to hold the wine until it is over its bottle sickness.

LW: I want to go into the bottle with about 30 parts free and 100 parts total *or less*. Of course, there are problems from time to time with this, but unless you are talking about high pH wines, I don't see a reason for wines of really high SO_2. I would personally consider it an error on my part if we are talking about a wine with those kinds of levels.

PW: Do you promote more bottle aging?

LW: Well, I promote it. Most people today are in a position where they have to release their wines too early. It is unfortunate, but it is an economic fact.

One thing I do, is to put emphasis on higher acids and pH. I am not adverse to acidulating a must, *if necessary*, probably to higher than most people do. On whites, going to 1.0 g/100 ml is not out of line, and to some degree, I go higher with reds too. I think that does affect the ageability of the wine in the bottle.

PW: How about the marketability of such a style?

LW: If you have to release them early, it hurts—but if you can hold them back, I think it really does add to the bottle bouquet.

PW: What about picking earlier? Everyone wants to make a La Tache, why not make a Beaujolais Village?

LW: That is a good question. My clients pick earlier, but I think with some varieties you won't get the flavor you want, particularly with Chardonnay. I like to see Chardonnay at a minimum of 23 Brix, but in some areas, they have to hit 24 to get the beautiful Chardonnay character.

CO: I agree. But, (laughing) wouldn't it be heaven to be able to control the weather and eliminate problems with picking crews? Then we'd at least start with the fruit quality we want, instead of what we get. I think a lot of California producers had intended to pick earlier the past three years, but were frustrated by the weather.

PW: Do you see a weeding out of wineries coming up?

LW: Yes, I think so. There are several wineries that I know of, which are in bad shape. There are not too many that I know of which will go out of business, but I do see wineries changing hands, and in changing hands that will bring in new capital as well as, hopefully, better organizational and marketing skills.

It is unfortunate for people like you and I, as we are most concerned with the wine going into the bottle, but the marketing people have the most influence because if they cannot or will not sell it, then you and I are in trouble.

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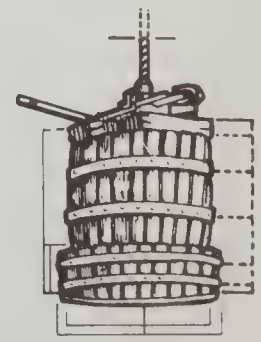

WINE MARKETING

By J. PATRICK DORE

Having only experienced the workings of a multi-million case winery up until a few weeks ago, I now feel that I am fast becoming an authority on the smaller wineries of the Central Coast and North Coast regions. This knowledge has been achieved as a result of my recent intensive research of the above mentioned areas. The bulk of the research was done by getting out into the trenches and identifying problems nose to nose. My fact finding resulted in a determination that the problems of a multi-million case winery are identical to those of a small winery. The difference is not in scope, but in scale.

As an example, when a large winery experiences a back up in case sales, they can review their computer print outs, identify the poor depletions by region, market and customer. They will go to the carpet with a regional and district sales manager, zero in on the reason for lack of performance, implement a plan to correct the situation and execute. Should the plan not work and this assumes it was a good plan at inception, then it's a people problem either internally or externally. Internally, their own sales personnel or externally their distribution network. Again, assuming all the other parts are running on six cylinders, i.e., product quality, competitively priced, good packaging, etc.

When a small winery experiences a back up in sales, they simply can't identify the problem or will pluck an incorrect reason from the sky to placate their frustrations. In truth, the small winery doesn't know the reason because they have not taken off their self imposed blindfold since bottle one left the winery. Before a crowd gathers to break my left leg, I know there are many exceptions and this article is not addressing those exceptions.

Let me make a clear distinction between sales and marketing and perhaps that will lend a better explanation to the "Blindfold Syndrome." 1) Mr. X (winery) sells a case to Mr. Y (distributor) and the birth of a sale has been consummated. 2) Mr. X (winery) sells a case to Mr. Y (distributor) and (step #3) tells Mr. Y where he wants the product placed. A sale is incomplete without a marketing PLAN to go along with this perpetual motion. The marketing plan is the long term nourishment for the brand longevity of a short term sale.

If there is still confusion and admittedly, I tend in that direction at times, answer the following questions to determine if you are a salesman or a marketer; a) When your product was ready to be sold, did you have a pre-determined idea of what markets you wanted the product in? b) When you sold the product to a distributor, did you scrutinize the distributor's operation beforehand to determine if he had the right profile for your type of product? c) When the product was placed, did you supply the distributor with a sales brochure to be certain his sales people had an absolute knowledge of the winery and products? d) Did you review the distributor's customer list to target only the accounts you want your product in? e) Did you support the distributor by making key account calls with his sales manager? f) Did you plan out hold back inventories to insure continuous supply of product to the restaurant accounts? g) Did you set up a calendar with the distributor to determine a reasonable amount of repeat key account calls in the trade during a calendar year?

These are just a few of the basic marketing plans that must be executed and are very inexpensive compared to the high dividends that they pay back.

Several of the small wineries I called on told me point blank "Who needs your services; I sell every case I can produce." Fine, but where did you sell it? to a distributor that will come back to you in two years asking for reimbursement for product that went bad in his warehouse? to a prestigious restaurant that kicked you off a wine list four months later, because you couldn't supply? to a retail store that shouldn't have been sold in the first place and now your products are in a "Close Out" dump bin at $1.99 a bottle? These situations are very real and can happen to anyone that doesn't have a marketing plan. Selling out of your total production on the surface appears as utopia, but could have disastrous results in the future which can be irreversible.

The development of a basic marketing plan is really quite simple. Let's say you want to take your product to the six million plus people in the Chicago market and you don't know a single soul, zero. To boot, you don't know or know of a single wholesaler, retailer or restaurateur in the Windy City.

Action Plan: 1) Pick up a California BIN publication and look up a *Seagram's distributor. 2) Call this distributor and ask for the name of the Seagram's distributor in Chicago 3) Call the Chicago distributor and ask to speak to the sales manager or the individual that handles the wine sales 4) Be honest and tell the individual that you don't know the market but would like a list of ten (each) top notch restaurants and retailers in a geographically confined area of town. Your naivety will win the cooperation of the con-

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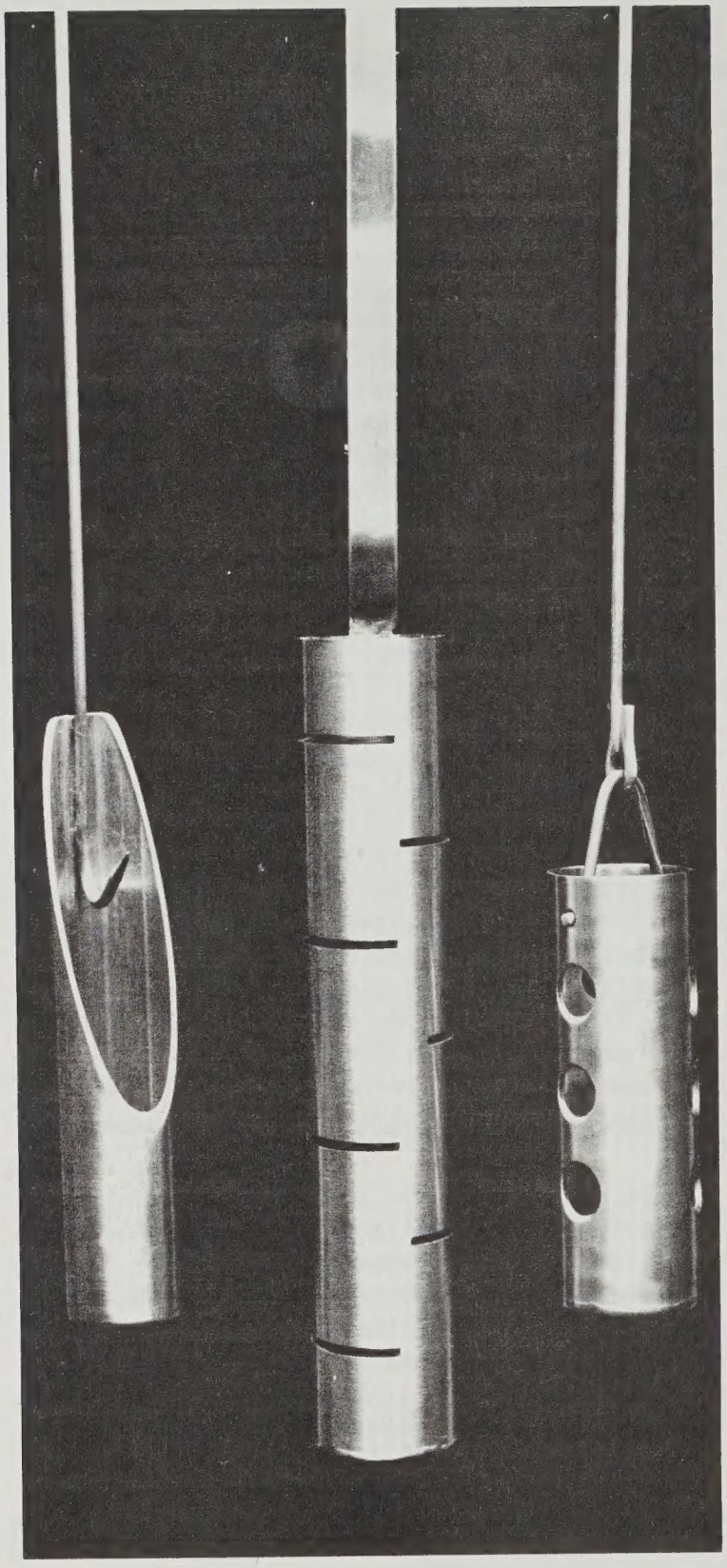

SULPHUR BURNERS – Three styles from three manufacturers are gathered here and all are priced between $25 and $30. Left, Ogletree of St. Helena, CA, offers a cup with a hook for the sulphur wick and a wire to be inserted into a wood bung for insertion in à barrel. Center, Process Engineers of Hayward, CA, offers a slotted cup on a band which a bung will hold in place. Westec, of Healdsburg, CA, offers a cup with holes on a wire with a wood bung supplied.

tact. Don't forget to ask for a hotel recommendation. 5) Jump on a plane.

Make your travel day a Monday for three reasons: a) A great number of restaurants are closed on Monday b) Retailers see salesmen on Mondays c) Why screw up your weekend. Allow yourself Tuesday, Wednesday and Thursday to make your surveys. Take your mission seriously and plan your first call at 9 a.m. and your last call at 6 p.m. For obvious reasons, see retailers from 9 to 2 and restaurateurs from 2:30 to 6 p.m. You don't have to make advance appointments.

Prior to your meetings, prepare a glossary of questions for the retailer and restaurateur. This planning will prevent you from stumbling over yourself and wasting the individual's time. Some examples of retail questions are as follows: 1) Currently what are the best selling wines in the premium field in your store? 2) Why are they doing so well? 3) Does the customer have a varietal preference? 4) What motivates the retailer to promote certain brands? 5) What price range should the wines sell for? 6) What can the winery do to promote brands? 7) What can the distributor do to promote? 8) In your opinion, name the five best *wine* distributors, by order of preference, that call on you? 9) Confidentially, why is one better than another?

I'll stop at 10 questions, however, worded differently, they can be applied to either retail store or restaurant. You may want to add a few more questions and I would encourage you to do so. Don't settle for a one sentence response to your question. Lead the individual to become talkative as he is the authority. Listen carefully as he may touch on material that you overlooked. Take good notes.

On the plane ride back, study the results of your questions over a sherry on the rocks. Look for similar repetition of responses to your questions and *from the redundancy, you build your marketing plan.*

The preference of distributors' question will be your next appointment when you go back to, in this case, the Chicago market. Send out personal letters announcing the dates you plan on being in Chicago. Follow up with a phone call confirming a time. Come out swinging with product in one hand and a marketing plan in the other. You may get your nose bloodied a couple times, so it might be wise to try your approach with an impartial friend. The friend playing the part of the distributor with emphasis on the "devil's advocate" role. It sounds silly, but "role playing" takes the kinks out and makes for a smooth, confident presentation of your business plan.

In summary, develop a basic marketing plan (ongoing) and stick to it. If you can't afford the luxury (expense) of an in-house marketer, appoint a professional marketing company to represent you. Whatever you do, have a game plan or face the consequences. A final word of caution, a broker is not a marketing company. Good Luck.

*Seagram's distributors are in all markets and are generally some of the finest, best informed houses across the country.

(J. Patrick Dore is the president of Classic Wines, Limited, a marketing and sales firm located at 307A Bridgeway in Sausalito. His phone number is (415) 331-3901.

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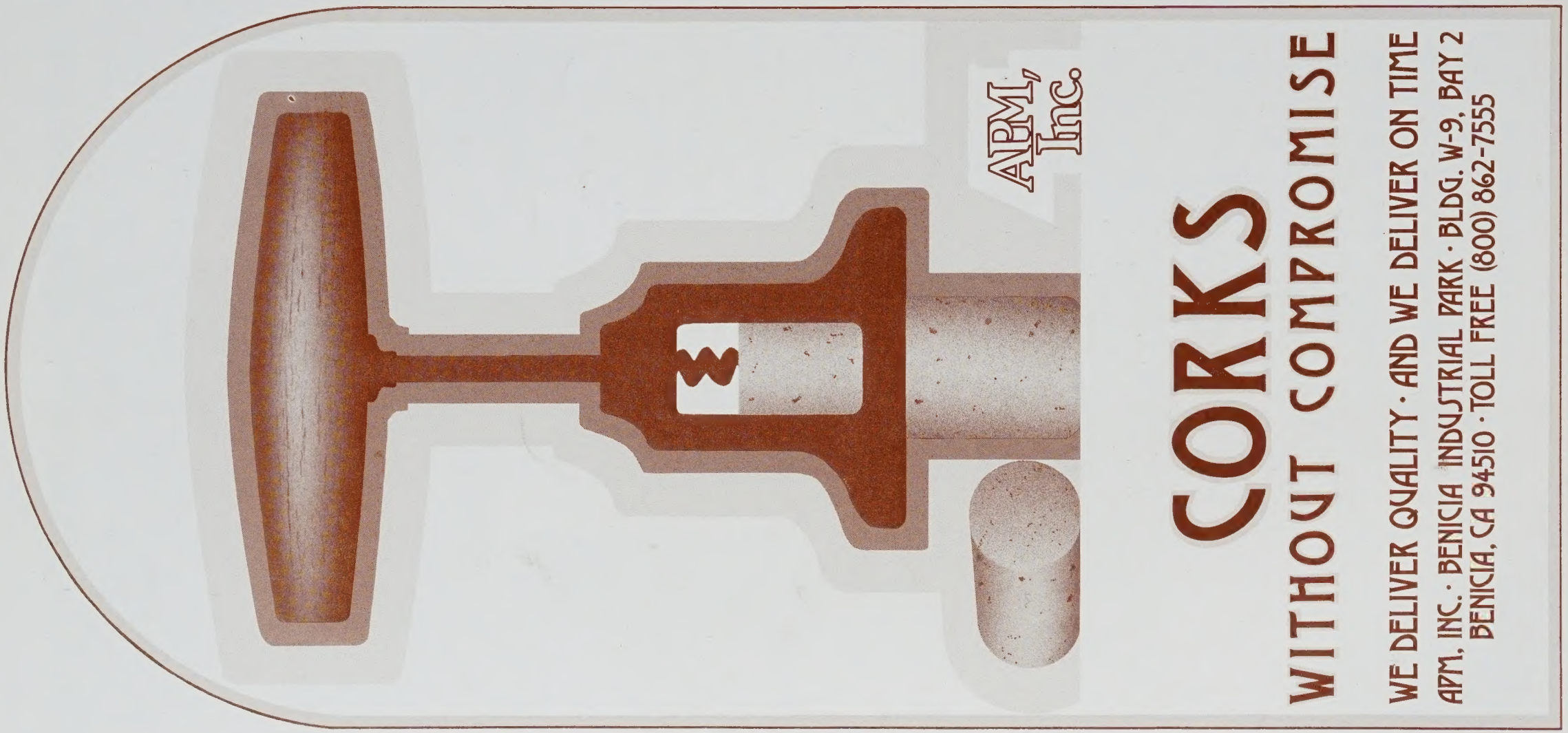
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